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Scientific Papers

MEDICAL-PSYCHIATRIC COLLABORATION

WENDELL MUNCIE, M.D.

In discussing medical-psychiatric collaboration it is customary to begin by mentioning the catalog of illnesses in which such collaboration may be fruitful. Not so many years ago this aspect of the problem was important, for then we psychiatrists were in the pioneer stage of pressing our new contributions onto the general medical consciousness. That phase is largely past and today there is a wide acceptance of the fact that personality disturbance—essentially emotional and attitudinal—plays a great role, sometimes the dominant one, in many sorts of illnesses. So it may be said that in the last twenty-five years, the outstanding development in psychiatry has been its entry into that world outside the specialized psychiatric hospital.

The admitted potential value of psychiatric effort is at the mercy of its participants. It is eternally being compromised by them: the psychiatrist, his medical colleague, the patient and his family. I shall comment on the following topics: 1) Problems in the practice of psychiatric referral; 2) problems in the practice of psychiatric reporting; 3) complaints against medical colleagues by psychiatrists; 4) complaints against the psychiatrist by our medical colleague; 5) breakdowns in collaboration. Lastly, I shall comment on community treatment facilities. Before I launch into my theme, laden with criticism of ourselves (psychiatrists) and of you (medical colleagues), I want to testify from my years of experience that there is no greater gratification to be obtained than from successful collaboration with medical colleagues of every speciality: I never cease to wonder at the variety of problems with which the general practitioner deals, and at the great body of intuitive personality evaluation he constantly must employ. That this acumen is largely unorganized, and that he has not adequate time to devote to its development furnish the reasons for the existence of such people as I.

The practicing physician's examination is the patient's first line of defense in illness of all sorts. Resting on the time-honored, if biased, custom of giving physical illness precedence in our thinking over mental or emotional illness, this screening process has great justification, but it also is the cause of much error in patient man-

agement. It is a rare patient who does not show something out of the way on examination. Immediately then it becomes a matter of judgment concerning the significance of these findings for the final complaint. The screening physician commonly passes on this phase of the matter without reference to the specialist's opinion. As a consequence, not a few cases come to a doubtful judgment, or at least a tardy one.

Today in Baltimore there are approximately seventy-five practicing psychiatrists. All are quite busy. A good share of their patients are referred by medical colleagues. Yet, I believe it safe to say, that, of the 1500 physicians in Baltimore, only a handful use psychiatrists regularly for diagnostic and treatment referral. At some time any one of the 1500 may call us asking for help with a patient who suddenly has developed an acute hallucinatory state with or without toxic accompaniment, or who has threatened suicide, or actually made a suicidal attempt, or is so excited as to make living in society impossible. In short, the emergencies are commonly recognized as such, and we are used promptly to relieve the physician of further responsibility. This usually means arranging for hospitalization. But even in emergencies I have seen an occasional mishandling of the referral: for instance, in arranging for office electroshock therapy of a case of deep depression without a good preliminary psychiatric evaluation of the basic condition, or without consideration of whether this is the optimal time for the administration of the electroshock, and whether it should be given in hospital or outside. I regret to relate that some so-called psychiatrists lend themselves to such a procedure.

Far fewer physicians use us for help in the non-emergency conditions constituting about one-third of all cases in general medical practice. These are the psychosomatic diseases and the psychoneuroses. The great error in referral here is in its tardiness. Often, by the time such cases come to us, they have had months or years of medical treatment with palliatives for symptoms,—especially vitamins, sedatives, antispasmodics, and superficial psychotherapy in the nature of reassurance, exhortation, rest cures, vacation trips, change of job, etc. Without denying that such measures may occasionally have an incidental value, it must be asserted that such patients are rarely appreciably helped by them. This is inevitably the case since the sources of the disorders lie in the faulty attitudes developed over a lifetime, and are to be modified only by long-continued therapy of an analytic-synthetic sort. Even so, intensive psychotherapy may or may not be successful, but in any case the task is made more severe by the relative chronicity of the illness before it is undertaken. The error here is in underestimating the gravity of such conditions, and in maintaining a hopeful expectant attitude which is unjustified by the facts,—as if inner turmoil could be exorcised by authoritarian and sympathetic approaches.

At the same time, I must recognize that much valuable time which erroneously appears wasted to us has in fact been used for that most important item: the development in the patient of a willingness to accept psychiatric referral. Many times my colleagues have told me of the struggle they have had over this point. And even when I have not been told, I have noted the excellent preparation of the patient for the event. My plea is for the recognition of the need and the application of the best judgment as to when to insist if necessary on referral.

Too often referral of such patients is not for psychiatric treatment, but for a statement of specific methods which the referring physician may employ. Inevitably our report recommending the need for long-term psychotherapy meets with disappointment from our colleague, to say nothing of the patient, who may have been over-sold on the value of a single psychiatric conversation.

Not a few psychoneurotics come to psychiatrists only after forcibly breaking loose from a physician who turns a deaf ear to their requests for psychiatric help by minimizing the difficulty. This is especially the case in patients with

chronic anxiety who have cooperated with, but not prospered under, a regime of sedatives, reassurance as to the cardiac status and encouragement. Yet these are among the most favorable cases for psychiatric treatment. The failure in referral must rest on a misreading of the gravity of such situations and an overly optimistic expectation from symptomatic treatment. It can not be stressed sufficiently that symptomatic treatment in such cases should never be extended beyond a few weeks without seeking psychiatric evaluation and treatment. Psychoneuroses can not be expected to resolve themselves with time. They tend to become more fixed and to extend their sway with the production of more handicapping symptoms in the absence of vigorous and searching psychotherapy.

Fortunately for everyone concerned, the time is largely past when patients are sent to us expecting us to be anything except psychiatrists. Not in a long time have I been referred to as a "neurologist," or that sugar-coated euphemistic "nerve specialist." The candor and frankness in referral is all to the good. I believe patients to be far less sensitive about being referred to psychiatrists than some physicians have thought them to be. The same rule applies here as in all other referrals: namely, the physician must know why he wants the psychiatrist's help, what he hopes to gain from it, and why he picks the psychiatrist of his choice. Also, he must be willing to state these facts to the patient. To handle these items well, presupposes a considerable fund on the physician's part of diagnostic acumen, psychiatric intuition, and acquaintanceship with the psychiatric talent in his community.

Many patients come in such a way that I have no advance idea as to why they are sent or what they have been told. In practice actually this is not as bad as it sounds, for I find a certain merit in beginning my conversations with the patient on a completely neutral note, with no hint of prejudgment of his case. In most instances such a naïve approach will unearth the essential facts of the illness, and often new facts not vouchsafed to the original physician. Also the patient's insight into his difficulties, and his urge for treatment as well as the degree of his treatability will come to preliminary judgment. Discussion then with the referring physician will round out the inquiry. Most of my busy diagnostic colleagues pursue this method.

The most natural method and the one most useful to the patient is that followed by a few old and tried colleagues, who call me on the phone and say: "I have sitting alongside me Mrs. K., who has such and such complaints for which I find no good explanation in my physical examinations. She is nervous, worried, or anxious, and has certain problems which I want her to talk over with you. She is willing to come. Any suggestions you make will be welcome." This method provides a basis of open collaboration, transferring to us the patient's confidence in her own physician, and assures that the consultation is free of resentment on her part for being sent, or of any suspicion of things being done to her behind her back. It allows the maximum leeway for discussion directly with the patient of the possibilities and alternatives in psychiatric treatment, a matter coming best from us since we are best qualified to make the recommendation.

Needless to say, the material of the whole diagnostic survey may be so complex that the psychiatrist's contribution and discussion must be hedged in with the proviso that it is subject to the weight of other factors known only to the physician charged with the survey, who must then have the final say in the recommendations.

A report should give the full complaint (often not the same as that given to the medical colleague), its historical development, the background including the health, social, economic, sexual, and marital states, the present mental condition, together with treatment opportunities, including the patient's openness to treatment, and if possible the specific recommendations for treatment. In the years I have been doing consulting work, I have noted a marked

improvement in the quality of the referring data offered by my colleagues, and, I believe, an equal improvement in the quality of the reporting.

Let us inquire more closely into the complaints we have with each other in regard to referral and reporting. I enumerate these unpleasant items as they have come to my attention for the single purpose of stimulating discussion to the end that better service may be given our patients. First, we find that the referring physician has an undue expectation from psychiatric consultation and treatment. I have noted repeatedly that we are expected to produce a "quickie-cure" through prescribing a way of life with a detailed program for the day, week, month, and giving direct counsel (actually a type of intervention) in the most vital and intimate matters, e.g., about business changes, marriage problems, separation and divorce, and especially about sex practices. Often the patient himself has been led to an undue expectation from ex-cathedra management of his problems. This attitude to treatment derives from the authoritarian situation which prevails so largely still in the field of general medicine, and which erroneously is extended to psychiatry. Modern psychiatry operates by collaboration relying on the patient to make his own decisions when he is fully aware of all the facts of his problems. Our job is to assist him in understanding these facts. Direct intervention is rarely our privilege, and in any case may not be made without the thorough establishment of a favorable soil for it in a collaborative study of the patient's life and personality. When this is done, direct counsel is rarely necessary, for the patient will come to his own decisions, as he should, since he alone has to live by the consequences of his decisions.

Our report in such a case fails to strike a responsive chord in physician and patient, and some disappointment or resentment is generated by the statement that the patient needs extensive psychiatric treatment. The ideal recommendation may not correspond to the practicalities of the situation, especially the financial facts, and the available treatment facilities; and when this is the case, there is the obligation to consider possible if less desirable treatment.

Another difficulty comes from the failure to reach agreement as to who is to be in charge of the patient's over-all treatment, or who is to treat what aspects of the problem. Two sorts of crises arise from this breakdown in liaison:

1) The collaborating physicians fail to keep each other informed of the patient's progress, a potentially hazardous matter in certain psychosomatic conditions.

2) The patient pits one physician against the other, and nullifies imperative needs in treatment. I still remember a defeat administered me in psychiatric treatment by a paranoid patient who appealed to her medical advisor, who had earlier referred her to me for treatment, to get rid of me over a trifling matter which should have been made the material for further analysis of her sick attitudes. Instead, he operated by the rule that the patient must be kept satisfied at all costs, and, with inadequate presentation of the case to me, acceded to her request.

Then there is that failure in clear statement of treatment procedure which leaves the patient free to undertake treatment with the psychiatrist, at the same time pursuing independent treatment with one or more other physicians, of whose very existence the psychiatrist may be quite unaware.

Psychiatrists are quite sensitive to the fact that a medical failure with a patient under psychiatric treatment is the object of condemnation at medical and lay hands to a degree which never pertains in the opposite situation: a psychiatric failure under medical care. As a consequence we tend to lean over backward seeking medical help, especially for that growing number of patients who are coming to us directly without medical referral. It would be a good thing if we all were to admit that very few physicians are qualified to give both first-rate

medical and psychiatric help, and act accordingly.

I have noted a tendency for referrals to come in batches from any one colleague, followed then by a long lapse, and again they come my way. I have assumed, with some corroboration from my fellows, that this means I am used until I fail on a case, when the referrals go to another until he fails, and finally my turn comes again, unless of course my original failure was especially painful in some respect. This merry-go-round may result finally in the physician "doing his own psychiatry," to quote an eminent colleague. I shall not challenge this self-assumed designation further, for by definition any interpersonal relation which has for its end the influencing of behavior is subsumed under the term "psychiatry!" But I must also note, with some regret, the opposite situation: the stopping of referrals from a valued colleague on the occasion of a signal psychiatric success after prolonged medical efforts have failed. To my surprise, I have seen the physician react with overt anger toward the patient for not continuing the former dependent relationship with him. There are probably cases in which the reverse roles have been played by psychiatrist and physician. Fortunately, most of us control our prestige needs rather well, and such instances are rather rare in my experience.

To summarize

We psychiatrists complain because:

1) Patients are sent too late for the best treatment effort;
2) Too much is expected too quickly of us in the treatment of chronic patients;
3) We too often are not given a free and unobstructed hand in treatment;
4) We are expected to give a blueprint for psychiatric treatment which the physician can follow without any knowledge on our part of his psychiatric capacities.

Now to mention some of the complaints which have come to my ears about us.

Our colleagues complain because:

1) Our reports are full of big words—and Greek at that—which if not actually unintelligible, fail to help;
2) We tell the patients nothing at all, or stir up resentment in them, which the colleagues must subsequently deal with;
3) We do not take into sufficient account the privileged position of the referring colleague as family physician, a role rather different from the specialist's;
4) When we take over treatment, that is the last they ever hear of the patient. There is no follow up report.
5) We are often said to be more peculiar than the patients sent to us for treatment;
6) We are never available when needed since our time is always taken up;
7) Our fees are high and psychiatric treatment is too expensive for many patients.

If our reports in fact are not enlightening, then we have failed. That we say little is inherent in our material and our method. Our purpose is to encourage the patient to talk and find his own solutions. Nevertheless, no consultation patient should be left with the feeling that he was roasted on a spit by the psychiatrist and got nothing in return.

I shall not attempt to defend the personalities except to say that a surprising number of us who are peculiar, at least know it, and try to do something about it through constant exploration of our own personality structures. It is true that our time is reasonably full, and this will continue to be the case until there are more psychiatrists and they are better distributed about the country. Extensive treatment *is* too expensive for many patients and this is a powerful force leading to experiment with shorter methods of treatment, and to certain abuses to be mentioned later. Also community facilities for low-cost treatment are at a minimum.

How does one pick a good psychiatrist for any job? The good psychiatrist has personal integrity, maturity of outlook and judgment, an awareness of social forces, and technical com-

petence especially in the field of psychotherapy. In late years the so-called shock therapies and psycho-surgical techniques have revolutionized certain aspects of treatment. Nevertheless, psychotherapy remains the backbone of psychiatric treatment, and the only method to be employed in the large number of office cases. All cases need psychotherapy, and the drastic methods should best be considered not as alternatives but as helpful aids to psychotherapy. Yet many practicing psychiatrists today have too little training in psychotherapy. In the large centers crowded with psychiatrists, one finds the most active exponents of psychotherapy. Conversely, in areas sparsely supplied with psychiatrists the shock methods tend to supplant intensive psychotherapy, due, I believe, to the heavy case load which makes it virtually impossible to devote the time necessary to intensive psychotherapy. The psychiatrist finds himself forced to spread himself too thinly ministering to so many aspects of the community life.

The choice of a psychiatrist is too often made through the simple fact that there is only one to be made, a consequence of the poor distribution of psychiatrists over the country, a condition notably better today than before World War II but still highly unsatisfactory. The young man going into practice tends to remain close to his training center for professional reasons, and because of his fear of working in isolation. He feels safety rests in numbers.

But assuming that there is a choice, how can you be sure your psychiatrist colleague fulfills the criteria above? The acid test comes only with time and rests on demonstrated character, and results with patients. I am of the opinion that the young psychiatrists today meeting the requirements of the American Board of Psychiatry and Neurology are measurably better trained than we were twenty-five years ago. Specifically, young men today have a great interest in psychotherapy, as shown by the many who pursue additional psychoanalytic training. How many continue to grow and go on to achieve real distinction is another matter with which we need not detain ourselves.

It remains to point out that the psychiatrist's effectiveness in his community parallels closely the community facilities for treatment,—in hospital facilities and social service agencies. The older specialized psychiatric hospitals commonly have closed staffs. Some newer units are admitting visiting men to the staffs. This development is more prevalent in the Midwest and Southwest than in the East. The psychiatric unit within the community general hospital with adequately trained nursing and supervisory personnel and special treatment means is the best answer to the problem of hospital facilities. Many short-term illnesses can be handled easily there, and preliminary diagnostic workup may best be done in chronic cases later needing prolonged care in specialized psychiatric hospitals. A growing number of Blue Cross Plans pay for psychiatric illness and should be a big factor in the extension of the use of such facilities. The hospital part of a patient's treatment may be materially shortened when the pre- and post-hospital phases are also in the same psychiatrist's hands—a valid reason for the establishment of a visiting psychiatric staff. The visiting psychiatrist should be as familiar a figure in the general hospital as his medical and surgical colleagues.

When psychiatric enthusiasm is fully discounted, the number of illnesses in which the psychiatrist can be helpful is still large. The potential value of psychiatric-medical collaboration finally must rest on adequate skill, adequate facilities, and adequate mutual understanding of the best methods to achieve smooth and efficient working relationships. While no one can always win, the percentage of wins can be greater than it often is if we confront ourselves always with the question: What can I do to give the patient a better break than he is getting up to this point?

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OPHTHALMOLOGY IN GENERAL PRACTICE

M. ELLIOTT RANDOLPH, M.D.,[1] AND JAMES I. MOORE, M.D.[1]

The purpose of this paper is to discuss the eye conditions most frequently encountered in general practice. It is impossible to cover the entire field of ophthalmology in any single paper but the major eye disorders that should be recognized by the general practitioner and receive attention have been included. This includes some of the specific eye diseases such as glaucoma and cataract, as well as those eye conditions that arise as part of some general systemic disease. The eye cannot properly be considered solely as a highly specialized organ of perception but as an important part of the entire body affected by constitutional conditions as well as by its own special group of diseases. The general health of the patient may well be a factor in the functioning of this organ and conversely a local eye disease which produces poor vision will have a profound effect on the patient physically, mentally and economically. In the final evaluation of the patient, the eye condition should be viewed in its proper perspective in the total picture.

HEADACHE

Headache is one of the most frequent complaints encountered in the practice of medicine and the role of eyestrain as a cause of headache may be difficult to assay from the patient's history. There is no typical headache associated with eyestrain. It occurs most frequently in the region of the eyes but may be referred to any part of the area of distribution of the first division of the 5th or upper cervical nerves. It may remain limited and unilateral or become generalized. It may be mild in nature and difficult to localize, it may be deep-seated and boring, full and throbbing or sharp, shooting and lancinating. Its onset is usually associated with use of the eyes. If the headache is present upon awakening in the morning, it is doubtful that the eyes are at fault. It is extremely doubtful that true migraine ever has its origin in a refractive error. The fact that the patient has good vision does not preclude the possibility of eyestrain causing the headache for the good vision may be the result of a compensating ciliary effort. There may, however, be occasional blurring of vision on continued use of the eyes for close work when the patient is tired or in temporary ill-health. This is due to relaxation of focussing but this clears rapidly when the eyes are rested. When there is eyestrain, there are likely to be some local eye symptoms in addition to headache, such as burning, watering of the eyes and a feeling of fatigue or heaviness in the eyes. On the other hand, eyes with gross defects and poor vision may not make the attempt to compensate for the defect and show no signs of strain.

Consideration should be given to the patient's age, use that he is making of his eyes, the illumination, and his general health and vigor. The far-sighted person who has enjoyed excellent vision for distance and near may be expected to have some difficulty in focussing near objects without glasses after reaching the age of forty. On the other hand, the near-sighted person may manage to read for years without glasses. When a patient complains of headaches and eye fatigue the physician must consider the demands made on the eyes. For example, an individual may do accounting all day, go to night school, then go home and watch television for several hours. It is little wonder that his eyes are tired the next morning. The patient's working conditions, tension, emotional stress are also factors. Not so many years ago most all the exacting visual tasks were performed only during daylight but now the eyes are often used for work entirely under artificial light. A person with excellent eyes who has been having no trouble, may develop symptoms of eyestrain

[1] From the Wilmer Ophthalmological Institute of the Johns Hopkins University and Hospital, Baltimore, Maryland.

during a period of convalescence "when they have nothing else to do but read."

Provided the eyes are normal, the conditions under which they are used are good, and the person is healthy, there is no evidence that use of the eyes is in any way harmful. Like all other organs, the eyes become tired with overuse but in general, the rational treatment of eyestrain involves the elimination of all deleterious factors in an etiology which may well be ocular, systemic or environmental.

The Red Eye

The "red eye" is one of the most common eye emergencies. It is seen in its most dramatic form in subconjunctival hemorrhage which may be caused by a blow on the eye or may occur spontaneously after straining or coughing, etc. It is painless, treatment is unavailing, and the patient can be reassured that the condition will clear in about ten days to two weeks without harming his vision.

With the exception of subconjunctival hemorrhage, some degree of discomfort is commonly present in every case of "red eye." This may vary from mild irritation to extreme pain. It is important to differentiate between conjunctival (superficial) injection and ciliary (deep) injection, the latter being indicative of involvement of the deeper ocular structure. A drop or two of adrenalin (1:1,000) blanches out the superficial vessels and has little effect on the deeper vessels. Superficial injection may be caused by conjunctivitis (which is almost always bilateral), foreign body on the lid or cornea, and mild nondescript irritations. Deeper injection is caused by corneal ulcers, keratitis, scleritis, iritis (iridocyclitis) and by the inflammatory form of glaucoma—not by the usual non-inflammatory diseases.

Pain is present on movement of the eye with a foreign body on the lid or cornea. It is constantly present when there is a corneal abrasion. A persistent irritation, rather than actual pain, is present in conjunctivitis. The pain of keratitis and scleritis is dull and constant, while that of iritis (iridocyclitis) and inflammatory glaucoma is more severe and generalized over the whole side of the head. A drop of anaesthetic such as Pontocain®(½%) will immediately relieve the pain of a superficial condition but will have no effect on pain when the deeper structures are involved. Pain is not characteristic of diseases of the posterior segment, such as choroiditis, retinitis, vitreous hemorrhages, etc. However, with optic neuritis and retrobulbar neuritis, there may be some pain (usually mild) on movement of the eyeball.

Loss of Vision

Excluding trauma, the sudden and complete loss of vision in one eye is caused only by occlusion of the central retinal artery. Occlusion of the central retinal vein may result in total blindness but usually takes several days to reach its maximum degree of visual loss. The visual loss in optic neuritis and retrobulbar neuritis may also develop over one or more days, but usually only one eye is affected and while central vision may be lost, the peripheral field is full. Central vision may also be lost in inflammations and hemorrhages in the macular area.

The visual loss with detached retina has a characteristic onset, the patient complaining of a cloud or veil encroaching on part of his field of vision. Even before this cloud or veil is noticed, there may be flashes of light coming from the side of the eye. Similar flashes are often noticed by elderly patients who have benign liquefication of the vitreous. The differential diagnosis can only be made by a careful ophthalmoscopic examination and equally careful visual field studies.

Acute inflammatory diseases of the retina or choroid, not involving the macula, cause varying degrees of visual blurring due either to the secondary inflammatory and hemorrhagic changes in the vitreous or to actual involvement of the vitreous. If the lesion involves the mac-

ula, there will be a central scotoma and the vision will be reduced to 20/200 or less.

Elderly patients who complain of gradual loss of vision may have cataracts, glaucoma or senile degeneration of the macula. If the ocular tension is normal, these patients should be dilated and the fundi studied. Senile macular degeneration is extremely common and is usually bilateral but not always of the same degree in both eyes in the early stages. These patients must eventually use a magnifying glass for close work. No treatment is available, but inasmuch as their peripheral fields will not become involved, it is a source of great comfort to them to be told they will never become blind.

Vitreous floaters (spots) are common. For the most part many are remnants of embryonic cells and are therefore of no pathologic significance. They may be particularly noticeable in the fluid vitreous of myopia and in elderly people who have benign liquefication of the vitreous. In all patients who complain of floating spots before the eyes, it is necessary to rule out inflammatory diseases and hemorrhages of the posterior segment.

Injuries

Foreign bodies on the cornea may be removed by using a sterilized needle on a hypodermic syringe. A particle of iron often leaves an embedded rust ring which should also be removed. Following the removal of a corneal foreign body, the eye should be padded overnight with some ophthalmic ointment, such as Gantrisin® or Aureomycin®, and evaluated the next day for the presence or absence of infection.

The extent of a corneal abrasion can be determined by staining with fluorescein (2%) solution.[2] In spite of the fact that most small abrasions heal satisfactorily within 24 hours, all are accompanied by varying degrees of pain due to spasm of the ciliary body. Relief can be obtained by dilating the pupil with one per cent atropine (in children) or five per cent homatropine (in adults). Local anaesthetics are to be avoided as they retard epithelial healing. Infection may be prevented by the use of Gantrisin® ophthalmic ointment. Such an eye should be kept padded and the cornea stained again the next day with fluorescein. If there has not been a definite reduction in the size of the original lesion, a secondary infection should be suspected and the patient immediately started on more intensive local chemotherapy.

Lacerating wounds of the globe require highly skilled care. Both eyes should be padded, the patient placed in absolute bed rest, and the dressing not disturbed until definitive treatment is available. If the object penetrates the eye and still remains in situ, no attempt should be made to remove it unless complete and final closure of the wound can be done. Vertical lacerations of the lid require careful closure. To prevent notching at the lid margin, the skin and orbicularis are closed in one layer and the tarsus and conjunctiva closed in the other.

Burns

The emergency treatment of chemical burns of the eye essentially consists of early and copious irrigation with tap water. There is absolutely no rationale in securing the proper chemical neutralizing solution and the delay may be damaging to the eye. Alkali burns are far more serious than acid burns and it is of the utmost importance that in addition to irrigation with water, a thorough search be made for retained particles of the alkali (lime). Should the alkali penetrate the cornea and appear in the anterior chamber, repeated paracentesis is often of value.

Conjunctivitis

Before the introduction of local chemotherapy, the usual treatment of acute conjunctivitis was limited to the frequent instillations of such preparations as argyrol followed by boric acid

[2] Fluorescein solution has been found to be easily contaminated with highly, virulent organisms. This can be eliminated by having the solution made up with 1:5000 aqueous zephiran.

irrigations. This simple procedure was often, and still is, quite sufficient to control the mild case of conjunctivitis.

With the introduction of numerous chemotherapeutic agents, under specific therapy, it is rare that even the most virulent case lasts longer than three or four days. Ideally a culture should be taken in every case but inasmuch as the majority clear within 24 hours, such laboratory procedures are impractical. Gantrisin® (4%) solution or Sodium-Sulamyd® (30%) solution are excellent sulfa derivatives in which local sensitivity is rare. The drops should be used every half-hour for the first four hours, then every hour thereafter. There is always the risk of local sensitivity with the use of antibiotics and the greatest offender is penicillin. In the more severe cases of conjunctivitis, Chloromycetin® solution used as eye drops has the widest spectrum. Bacitracin® and Terramycin® solutions, used as eye drops in that order, are also efficacious and safe. Drops may be supplemented by a similar chemotherapeutic ointment before retiring.

Retrolental Fibroplasia

In 1942, Terry of Boston first described this disease which has now become the most frequent cause of blindness in infants. It is primarily a disease of the retina and vitreous and occurs almost exclusively in infants with premature birth weights of less than 3½ pounds. Fifty to sixty per cent of such infants have early manifestations of the disease while ten to twenty per cent have permanent residual damage. The disease starts with an acute onset and runs an active course which finally subsides. The final picture depends on the severity of the active stage and the extent of the fibrous tissue formed during this stage. The earliest detectable changes can be recognized with the ophthalmoscope about three to five weeks after birth and consist of engorgement and dilatation of the retinal veins and tortuosity of the arteries. There are grayish swellings of the retina in the periphery. The vitreous becomes cloudy and new-formed (proliferating) fibrous bands extend forward from the elevated retina into the vitreous. The retrolental membrane is formed by the fusion of the vitreous bands and the peripheral folds of the swollen, elevated retina. Both eyes are affected by the disease but not always to the same extent. The active phase usually stops by the fourth or fifth month. The membrane behind the lens may be complete in one eye and partial in the other. When complete, all vision is lost.

Much progress is being made in the etiology and at present it seems likely that the high levels of oxygen concentration (50–60%) used in incubators may be the causative factor. Relatively few cases have been reported where the oxygen concentration was as low as 30–40%.[3]

The only treatment of this condition is preventative. Once the disease has started, no treatment will affect its course.

Lacrimal Apparatus

Tears are not present until about two weeks after birth. Not infrequently one or both lacrimal passages may be occluded in infants. The symptoms of lacrimal stenosis are persistent "tearing" which may be accompanied by a mucopurulent discharge. Pressure over the lacrimal sac occasionally may be sufficient to effect a passage of the stagnant tears into the nose. In general, the passing of a lacrimal probe is a relatively simple procedure and is almost always successful in effecting a cure. In small infants, this may be done without an anaesthetic but in those children over a year, a general anaesthetic is necessary.

In adults, where obstruction of the lacrimal passage may be due to infection or trauma, probing is less frequently successful and a more extensive operative procedure, such as a dacryocystorhinostomy, may be required.

[3] Study of Prematures—Open Letter, Paul Harper, M.D., Maryland State Medical Journal, Vol. 3, No. 2, Pg. 55, February 1954.

Congenital Cataracts

These can be diagnosed at birth by the routine examination with the ophthalmoscope. Needling (discission) should be done at an early age, even as early as six months. This procedure may have to be repeated several times. Unfortunately, congenital cataracts are often associated with other congenital defects, such as microphthalmos, which make the prognosis poor. Disease of the posterior segment, such as retrolental fibroplasia or retinoblastoma, may be mistaken for congenital cataracts and the true diagnosis missed.

Squint

The ability to use both eyes together (fusion) does not develop until after six or eight months of age. After this age, the purposeless "wandering" of one or both eyes, whether periodic or not, should arouse suspicion that a true squint may exist. If one eye consistently turns in or out, the diagnosis is certain and the parents should be told that the child "will not outgrow it."

The "cover test" is the most important test in diagnosing the presence of a true squint. The child is asked to look at some test object such as the examiner's nose. The examiner's hand is placed alternately over one then the other eye. If, when the hand is shifted to the other eye, the uncovered eye moves in or out as it looks at the test object, then a true squint can be said to exist. Not infrequently, a wide nasal bridge or a slight epicanthus simulates a convergent squint. In such a case, the cover test quickly shows that neither eye moves as the eyes are covered and uncovered. This test should also be done for distant objects. If the child alternately fixes with one eye and the other deviates, it is evident that vision is equal and probably good in each eye. If one eye constantly deviates, it is practically certain the squinting eye has faulty vision and every effort must be made to force him to use the deviating eye. In general, the only satisfactory method of doing this is complete and total occlusion of the fixing or good eye.

In all cases of squint, the refractive error should be determined at an early age. Even in infants, this can be determined by atropine retinoscopy and if necessary, glasses can be prescribed as young as one year of age. If indicated, the appropriate glass is prescribed. If there is a high refractive error, there is little difficulty in having the child wear them.

It must be strongly emphasized that the most important factor in the treatment of any squint is the building up of vision in the squinting eye. In older children, constant and total blocking off of the fixing eye is the only reliable way of improving the vision. In younger children, atropinizing the fixing eye may occasionally be successful. Surgery is indicated as soon as it is clearly demonstrated the squint cannot be corrected by glasses. The surgical correction is usually not a formidable procedure and rarely requires more than one or two nights in the hospital.

Orthoptic or muscle training is also an important adjunct in developing the ability to use the eyes together.

The psychological effect of "crossed eyes" on the developing child should not be ignored, and every effort should be made to correct the squint before he reaches the school age.

Cataracts

An individual with cataracts complains of a gradual decrease in vision usually over a period of months. There is no known medical treatment for cataracts, the only treatment is surgical removal of the cloudy lens. Except in rare cases of hypermaturity, the optimum time for operation is elective and operation is indicated when vision has fallen below the individual needs of the patient. An eye from which a cataract has been removed will not work with an eye which has a normal lens. This is because of the difference in size of the retinal images of the two eyes. Therefore removal of a unilateral cataract

is only indicated to give an enlarged visual field on the blind side or when the cataractous lens becomes hypermature. Present day methods of cataract surgery with the utilization of corneal sutures insure tight and secure closure of the incision and enable the patient to sit up on the day of operation and to be out of bed the following day.

Glaucoma

Glaucoma is responsible for a large part of the world's blindness. The onset is often insidious and the disease therefore is often detected only in the late stages when irreparable damage has been done to the eye. Only about 25 per cent of glaucoma cases are symptomatic—either painful, cause halo vision or affect the central vision early. The other 75 per cent rarely complain of any visual difficulty except in the terminal stages of the disease. Thus the disease in the early stages is usually only diagnosed as a result of a routine eye examination. Only in the late stages of glaucoma does the patient discover a defect in the peripheral field of vision of one or both eyes. Each year it is estimated that 2,600 individuals become blind from glaucoma and mass screening examinations of large industrial establishments give the estimate that 2.7 per cent of individuals over 40 have undiagnosed glaucoma. There are probably over a million Americans who are unaware that they have this insidious disease.

The early case of chronic glaucoma, before changes in the optic nerve can be seen, is discoverable only by the taking of the intraocular pressure with a tonometer. Inasmuch as this is not a routine procedure, it is no small wonder that so much glaucoma exists. There would be no problem if all glaucoma patients had pain, blurred vision, or were conscious of haloes. These patients are the ones who quickly seek medical attention.

The ocular tension should be taken routinely by finger palpation. The patient should be instructed to look down but not close the eyes. Unfortunately, this is not always accurate and it actually gives an indication of the softness rather than the hardness of the eye. Cupping of the optic nerve should make the examiner suspicious. A rough estimate of the visual field is easily done by the confrontation test although this discloses only gross defects.

The treatment of glaucoma is both medical and surgical. Preliminary medical treatment with miotics is usually indicated. Surgery is definitely indicated if, in spite of miotics, there is further loss of vision, further constriction of the visual field, or the tension is not brought within safe limits. Whether under medical or surgical regime, the earlier the treatment, the greater the chance for control and the reverse is equally true.

Acute inflammatory glaucoma offers no great diagnostic problem. The pain is excruciatingly severe and is often accompanied by nausea and vomiting. The pain is through and around the eyes. The globe is congested, the cornea may be steamy, the anterior chamber is usually shallow and the pupil is semi-dilated and somewhat oval. In such cases, the eye is stony hard. Such a case should be handled as an emergency. Pilocarpine hydrochloride (5%), augmented with eserine salicylate (¼%) should immediately be instilled in the eye, and this can be supplemented by 250 mgm. of Diamox® orally every six hours. This latter preparation is a diuretic and has recently been found most helpful in the temporary reduction of ocular hypertension. If the pressure can be brought under control and kept within normal limits, operation had best be postponed for a few days until the congestive signs have subsided. However, if the pressure is unaffected by this local and systemic therapy, operation should be done within the first twelve hours, if possible.

Acute glaucoma can be confused with acute iritis (iridocyclitis). In each the eye will be painful to touch but in iritis the tension is normal and the objective symptomatology is quite different. Of utmost importance is the size of the pupil. In iritis it is small, particularly so when compared

with the normal pupil of the other eye. In glaucoma, it is dilated.

Interpretation of Fundus Conditions

When evaluating a fundus, maximum pupillary dilatation is essential. The most usual dilating solution is Paredrine hydrobromide® (1%), one or two drops of this solution widely dilating the pupil in about 30 minutes. Inasmuch as there is always the remote danger of mydriatic glaucoma with any dilating drop, pilocarpine (1%) should be instilled when the examination is completed.

Provided a cataract can be ruled out, a hazy media is usually indicative of hemorrhage or some inflammatory condition. When one discovers a swollen nerve head, the ophthalmoscopic differentiation between optic neuritis and papilloedema due to increased intracranial pressure is difficult. However, in optic neuritis, the central vision is grossly impaired whereas in papilloedema, there may be no impairment of vision except in the late stages. Often one is called upon to evaluate questionable changes in the disc as an indication of early increased intracranial pressure. Hyperemia of the disc, blurred margins, a shallow cup may all be physiologic and may often exist with high hyperopia. However, in an early case of true papilloedema, overfilling of the venous tree and blurring of the upper and lower poles of the disc are probably the most important diagnostic points. The normal ratio of the vein to its corresponding artery is 3:2 and when this is increased to 4+:2, in addition to hyperemia, shallow cup and blurred margins, there is strong presumptive evidence of the presence of increased intracranial pressure. This becomes even more so if the usual normal venous pulsation over the disc is absent.

In evaluating the retinal vessels for arteriosclerosis, the most important diagnostic points are changes at the arteriovenous crossings, attenuation and irregularity of the arterial tree, alterations in the course and calibre of the vessels. When the calibre of the arterial tree is narrowed when compared to its corresponding vein, some degree of hypertension is probably present. In later stages of arteriosclerosis and arteriolarsclerosis with hypertension, hemorrhages and exudates in the retina are a part of the picture.

Examination of the eyes, with particular attention to the ocular tension, motility, transparency of media and fundi will be rewarding to the examiner in valuable information obtained and to the patient in terms of vision saved through early detection of disease processes.

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COMMON INFECTIONS IN THE URINARY TRACT

W. HOUSTON TOULSON, M.D.

In any consideration of the urinary tract, infections occupy first importance either in primary occurrence, or in complicating other conditions such as stone, tumor, anomalies, etc.

No matter where the infection starts, whether in the kidney or lower urinary tract, it sooner or later involves the entire urinary tract. The longer the infection lasts the more difficult it becomes to eradicate and the more we may expect repeated infections. One of the chief reasons for this is the fact that the infection becomes embedded in the urinary tract and the genital system in such a way as not to be reached by drug therapy. Chronic nephritis, intramural ureteritis and, cystitis, chronic prostatitis, etc., are but a few of the chronic infections difficult to eradicate.

Acute infections of the kidney often give rise to initial symptoms of chills, fevers and sweats, similar to the symptoms of acute infections in the upper respiratory tract. Sometimes the symptoms of urinary discomforts, backache and costovertebral tenderness are delayed for several days and may be overshadowed by the more severe general symptoms.

Renal infections commonly occur in children, especially girls. The child may be so young that a history of urinary disturbances may be impossible to obtain and only repeated observations of the urine will suggest the diagnosis. Unfortunately when urinary tract infections do occur in children, severe and at times permanent damage is done to the kidneys or walls of the ureter, preventing proper drainage, creating a stasis of urine in a tortuous ureter and promoting a hydronephrosis, unilateral or bilateral. This damage may be immediate, or on the other hand, not be recognizable until later on in life. Pyelitis of pregnancy is occasionally due to a damaged urinary tract persistent since infancy.

Fortunately most of the bacteria that invade the urinary tract are amenable to chemotherapeutic agents. The E. coli group of organisms is responsible for 60–80 per cent of infections. This group of organisms may be cultured from the urine as a pure culture, but a mixed infection is usual with aerobacter aerogenes, streptococcus fecalis, staphylococcus aureus, and more rarely B. proteus and B. pyocyaneus.

Since many of the infections are due to the invasion by mixed organisms, recent tendency in therapy seems to indicate the administration of several different drugs at the same time. Certainly no one drug or combination of drugs is uniformly successful. Even sensitivity tests, where possible, are not entirely effective.

In persistent and long standing infections the resistance of the patient is undermined. This is manifested by low blood pressure and secondary anemia. Renal function may be so reduced by infection that a long chain of "neurotic" symptoms may develop due to an ensuing uremia. These complicating factors should be corrected before drug therapy can be effective. Indicated drug therapy is so changeable and new drugs are constantly appearing, showing that there are still failures. These drugs are going to be more effective if the patient is put in the best possible condition generally.

The reaction of the urine is important to observe. Bacteria have to live in a favorable chemical medium. Hence if an infection persists in alkaline urine every effort is used to change the reaction and similarly acid urines are changed to alkaline urines. Some of the drugs are only effective in acid urine, e.g. mandelic acid. The use of drugs to change the urine reactions are helpful in the therapy as are proper diets.

All of the conditions of the urinary tract brought about by infections cannot be recognized by the patients' complaints. Flat X-rays and excretory pyelograms will afford a diagnosis frequently, however, since excretory pyelograms depend on the efficient functioning of the kidneys, these pyelograms may be completely disappointing, or they may suggest a diagnosis which only cystoscopy and retrograde pyelograms can confirm.

Chronic Infections

The relation between chronic renal infections and vascular changes is well known. Chronic pyelonephritis is considered responsible for fifteen to twenty per cent of cases of malignant hypertension. Most of the pathological processes of the urinary channels can be diagnosed either by intravenous or retrograde urography. Hydronephrosis, hydroureter, diverticulations of the bladder, etc., can all be demonstrated, but chronic infections of the substance of the kidney are difficult to diagnose at times and these are the very cases that produce high blood pressure.

Calculi

One of the most common complications of infections in the urinary tract is the formation of urinary calculi. While it is difficult to prove the

existence of infection in every patient with renal calculi, many urologists believe that infection is present in every case and is often the cause of stone formation.

B. proteus, B. pyocyaneus and B. influenza infections, and at times E. coli "split urea," that is, these organisms have the power of breaking up the urea in the urine and forming ammonia. "The result is a strongly alkaline urine that favors the precipitation of the crystals of calcium phosphate and magnesium ammonium phosphate, and calcium carbonate." All these substances are present normally in abundance in the urine.

When these urea splitting organisms appear in the urine the incidence of stone is high, and stones may be expected to form regularly unless the underlying infection is eradicated.

There is hardly any infection in the urinary tract in the mature male that does not leave in its wake a secondary infection in the prostate gland and seminal vesicles. Acute epididymitis is also apt to result. While some of the prominent symptoms of chronic prostatitis are persistent backache and pains down the leg, chronic prostatitis may be, and often is, symptomless, and yet there may be sufficient infection present to cause a reinvasion of the entire urinary tract. Foci of infection such as teeth, tonsils, sinuses, cervix, chronic gall bladder disease, chronic appendicitis, in fact chronic infections any place in the body have been suspected of causing infections in the urinary tract.

Summary

The vast number of infections in the urinary tract are easily diagnosed and will respond promptly to the usual treatment of mandelic acid, sulfonamides, or the antibiotics or combinations of these drugs. When these agents fail, complicating conditions may be expected and a complete survey of the entire body and more especially the genito-urinary system is needed.

Some idea of the frequency of urinary tract infections may be obtained from the following statistics. In 1953 about 2000 cystoscopic examinations were made at the University Hospital for infections of the urinary tract. A diagnosis of urinary calculi was made in sixty of these patients. Thirty-three had stones in the kidney, twenty-three were stones in the ureter, one in the bladder and three in the prostate gland.

Therapy

Mandelic acid and its preparations are still the drugs of choice in most of the bacillus type infections found in acid urine. The urine is almost bacteriostatic when the pH is 5.5 or below. The efficiency of this drug is enhanced by strongly acid urine. One of the best drugs in this group is mandelamine which is a combination of urotropin and mandelic acid.

The sulfa drugs are usually used against the gram-negative bacilli and all the gram-positive cocci. The sulfa drugs have now been so improved that serious reactions are rare. The administration of agents to keep the urine alkaline while giving sulfa drugs reduces reaction to a minimum. Gantrisin, or some kindred drug, is excellent.

The antibiotics are generally effective against all the infections of the urinary tract, either given alone, or even better when given in combinations. Reactions due to antibiotics are very common. Drug rash and intestinal manifestations are to be expected if these drugs are used over too long a period. In our experience, if a good result is not obtained in five days, with a specific antibiotic it is discontinued and another tried. Very often after intensive antibiotic therapy for four or five days a patient begins to have a continued or intermittent high fever from some unexplained action of the drug. It is often necessary to try different combinations of these antibiotics because of the tendency of the infection to become resistant against one therapeutic agent. For some reason there is a great tendency for organisms to become drug fast to the antibiotics and this resistance may develop very rapidly. In the use of some of these drugs a high concentration in the

blood and urine is necessary and, on the other hand, if renal function be impaired the fluid intake must be increased. Appropriate attention to the proper fluid ingestion is important.

Careful attention to the general welfare of the patient, fluid intake, secondary anemia, diet and elimination are simple measures that should not be over-looked.

Medical Arts Building
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SYMPOSIUM ARRANGED BY THE BALTIMORE CITY MEDICAL SOCIETY IN CO-SPONSORSHIP WITH THE HEART ASSOCIATION OF MARYLAND[1]

THE MEDICAL MANAGEMENT OF ACUTE AND CHRONIC ARTERIAL OCCLUSION

A. WILBUR DURYEE, M.D.[2]

Dr. Taussig, members and guests of the Baltimore City Medical Society and the Heart Association of Maryland, it gives me great pleasure to come to Baltimore, a city famed for its medical history and for its interest in the field of Cardiovascular Diseases, and talk to you about a subject which is rapidly becoming one of the foremost problems in the field of medicine. It overlaps into all specialties, but, of course, the internist and the cardiovascular specialist meet these problems most frequently.

Peripheral arteriosclerosis is the leading problem with which we have to deal in the occlusive diseases of the extremities. Therefore, I shall direct most of my remarks to this particular aspect of the problem of occlusive arterial disease. Briefly, we might summarize some of the other problems that reduce the circulation to the extremities, but general management of all of these problems is essentially the same.

We have as another chronic progressive vascular disease affecting the young male, thromboangiitis obliterans. We have the acute occlusions of healthy arteries from emboli arising centrally from the heart or the major vessels. We have the rare inflammatory diseases of the arteries which occlude them by inflammatory processes, such as periarteritis nodosa, or polyarteritis nodosa, and we have traumatic injuries to the arteries.

Kellner, in the graduate fortnight discussion at the New York Academy of Medicine in 1950, started his lecture on Arteriosclerosis with a sentence that describes the disease very clearly. He said, "It is an episodic and a segmental disease."

It is a disease of which we do not know the cause. We do not know why it flares up and quiets down, and we do not know why it involves certain areas of the body, certain segments of the blood vessels and leaves other areas immune.

Now in order to manage a disease with such a bizarre and uncertain pattern, we have to have a concept, as complete as possible, of the underlying pathology of this disease, and although I am sure everyone is aware of these changes, before I go into the problems of management, I would like briefly to review just what takes place in these arteries that we are treating or trying to manage—I think management is a better term because we do not have specific therapy.

[1] Presented before the Baltimore City Medical Society on Friday, November 20, 1953, in Osler Hall, Medical and Chirurgical Faculty Building, 1211 Cathedral Street, Baltimore 1, Maryland.

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First, we have a change in the wall of the vessel and that change of which we are interested is in the lining of the vessel, the intima. We have a piling up of that intima so that eventually it fills most of the lumen of the vessel.

This process may take place quickly or slowly, and very frequently is limited to small segments of the vessel.

Secondly, a complication of that process is occlusion by thrombosis, and one frequently sees an acute shut-off because superimposed on the underlying pathology we have the process of thrombosis.

Thirdly, we may have a chronic process that has been present for a long time with a segment of the artery occluded by an old, long-standing, sclerotic fibrotic area with a recent thrombosis finally closing the artery. Finally, as this pathology progresses, we get recanalization to a minimal degree and we have the deposition of calcium in the wall of the vessel. This calcium as it is laid down in the wall of the vessel is a late change and not an early change, and in many of the cases the calcification is a small factor.

The cardinal signs of arterial insufficiency are rubor on dependency and pallor on elevation. When the foot is dependent, one notes typical rubor. When that foot is elevated above heart level, pallor develops.

One naturally is interested in the degree of the pulsation in these extremities and for this reason we have depended on the instrument known as the oscillometer. Certain groups, like the Mayo Clinic, are not too enthusiastic about its value while others are more so. Friedlander, in the early thirties wrote quite a monograph on the value of this apparatus in determining the type of occlusion, the level of occlusion, etc.

We have many diagnostic procedures which help us. One of the most important is the x-ray. At this point I would like to point out that x-ray evidence of arteriosclerosis, as manifested by calcification of the vessels, is no indication of the functional capacity of these arteries. In the medico-legal problems that we must face in this field, it is common to have a lawyer or even a physician on the witness stand hold up a film with so-called four plus calcification of an artery and say that this patient can't work, can't use his extremity because his arteries are hardened, they are calcified. Actually many of these areas of calcification are limited to the middle coat, or the media of the vessel, and the lumen is still wide open. The finding of calcification makes a diagnosis of arteriosclerosis but gives us no idea of the function.

Many clinics throughout this country have done extensive work in using the arteriogram as a diagnostic procedure in routine work-up of patients. At the present time it falls into a special diagnostic procedure which is indicated in relatively few peripheral vascular problems. There are some problems, however, where it is of a great deal of value.

In order to demonstrate the site of these occlusions it is valuable to have a clear-cut picture by a contrast injection of the artery. We may find that a mass in the popliteal space is an aneurysm, a false aneurysm, or a saccular aneurysm from the wall of the artery, with the artery patent below the aneurysm and carrying blood.

With the development of the aortogram by our co-workers in South America and by much work in this country we are even able to visualize the major vessels from above the level of the kidneys on down through the abdominal cavity and into the extremities.

An arteriogram may demonstrate a segmental obstruction of arteries and reveal good collateral vessels, in which case the surgeon can be of a great deal of help to us in therapy.

So far, the pathology I have spoken about is organic. The walls of these vessels have been damaged by a process, the etiology of which we do not know, and which we have no way of arresting or altering, but associated with the organic changes we have functional changes which can be measured.

In 1926 George Brown of the Mayo Clinic wrote extensively on the vasomotor index. In

other words, he was interested in determining the ability of blood vessels to dilate whether they be major vessels or collateral. At the Mayo Clinic this was studied by the injection of typhoid vaccine and measuring the rise in skin temperature for several hours following the injection of this foreign protein. Since then we have developed simpler methods.

Landis and Gibbons, in describing reflex vasodilatation from heat, devised a method which we are using in our own clinic rather extensively and which we feel is probably the most reliable in determining the factor of vasospasm. The temperature is recorded in both lower extremities following a period of exposure of these extremities to a room temperature of about nineteen degrees centigrade. This control period usually reduces the toe temperatures to the room temperature.

During the period of emersion, when the arms are placed in hot water, we note a reflex vasodilatation and we get a temperature rise of the toes which depends on the ability of the vessels to dilate. In cases with normal vessels we obtain a rise to about thirty-two degrees centigrade. In a patient with occlusive arterial disease due to arteriosclerosis, we frequently see very little rise in the temperature of the toe tips.

This same type of graph can be obtained by doing lumbar blocks, but if you do a lumbar block, in order to compare extremities, you have got to do it bilaterally, which to a patient is annoying and uncomfortable. Therefore, we usually prefer, where we want to study one extremity as compared to the other, the reflex vasodilatation test.

On the other hand, where you are interested in only one extremity and where you have a *competent* anesthetist or a vascular assistant who knows how to do these blocks, such a block will probably give you the same information and more quickly.

In 1933 Dr. Wright and I started studying the effect of tobacco on the peripheral circulation. We noted tremendous drops in the temperature of an extremity fingertip following the smoking of a standard brand cigarette. A few years later Lampson, of Yale, checked this work using instead of the temperature studies the platysmograph to measure changes in blood flow in an extremity.

In the basic principles of management of these people with occlusive disease, whether it be acute or chronic, there are certain factors that I would like to enumerate and then discuss in a little detail. Before pointing these out, I would like to say that I am afraid many of you will be disappointed in the negative angle of this discussion because I personally believe, and I am sure there are many workers in this field around the country who believe that peripheral vascular disease has been mistreated and overtreated to a point where the treatment has not only been useless but frequently harmful, and therefore what I am going to say will be in many instances of a debunking nature.

The management of these patients with occlusive arterial disease should have a two-fold purpose. First, to preserve the envelope of the extremity, in other words, prevent gangrene and preserve the extremity. And secondly, to improve the function of the extremity to permit better walking.

Where the disease is acute or where it has progressed to a point where the arterial circulation is so badly reduced that gangrene is imminent, we forget the second principle and go after the first. In the early case or the case which has already gone through the acute stage, the problem of increased function becomes primary.

With the first problem, the acute problem, we are interested in increasing the circulation to the skin to save that extremity. We are not so much interested in the circulation to the muscle. If you think back in your physiology, you know there is a reciprocal innervation of the blood vessels supplying the muscles and the skin.

If a dog or human is angered and has to fight, there occurs a vasospasm of the blood vessels of the skin and a secondary increase of blood in the

vessels of the muscles. Now, we are interested in the reverse problem, not in the animal who has to fight. We are interested in getting more blood in the skin, so therefore anything that you do that might increase muscle circulation is harmful for the skin and anything that you do to increase skin circulation will necessarily deprive the muscles of some of the blood supply.

In the first place, we must protect the skin. In the second place, we try to increase the blood supply to that skin by vasodilatation. In the third place, we must try to prevent thrombosis which complicates the problem of arteriosclerosis. In the fourth place, we must prevent infection. Those are the problems we have to meet in managing occlusive arterial disease.

I must point out the importance of protection, and by protection we mean avoidance of all types of trauma not only mechanical but chemical, thermal, and vibratory that tends to cut down circulation.

The position of the extremity, particularly in the acute case, is important; we are interested in what position the maximum blood flow can be obtained. Robert Wilkins of Boston within the last eighteen months has written a very excellent article in the Annals of Internal Medicine showing that you can get a ten per cent increase in blood flow through the skin vessels with the foot in the dependent position. In other words, an elevation of the head of the bed of ten inches so the heart is above the extremity level will increase the blood flow to the extremity. It still is a common observation as one goes around hospitals to see feet with arterial impairment elevated on pillows thereby increasing the ischemia.

I do not have to spend many minutes discussing the environmental temperature because it is an old story that where one puts heat over these extremities one increases the metabolic demands of the tissues. With the increased metabolic demands there is an increased demand for blood, and if the blood supply is inadequate you produce blistering and gangrene.

In the early management of these cases, whether they be acute or chronic, one wants to eliminate the vasospastic factors.

I have already pointed out to you the role that tobacco plays. Adrenaline and all the other drugs of this group have to be eliminated in the care of these patients because vasospasm has to be overcome.

I would like to spend a few minutes discussing the problem of vasodilatation since it is all we hear about today, and since it is the most important method of increasing blood supply to these extremities. Moreover, there are certain vessels particularly the collateral ones that frequently have a very large element of vasospasm.

When I first became interested in this field in the early thirties, Acetylcholine was on the market. The early advertisements described it as an excellent form of treatment for Buerger's disease, arteriosclerosis, Raynaud's disease, etc. We already had at that time the nitrites and xanthenes as vasodilators. Since 1933, some remarkable drugs have been developed either acting centrally or blocking ganglia or acting on end fibers, knocking out sympathetic control so that one obtains excellent vasodilatation in the experimental animal and in the human being. Naturally these drugs were turned to in the management of cases of arterial occlusion.

I can name a few of them: Tetra-ethyl Ammonium Chloride, Priscoline, Dibenamine, Roniacol, Nicotinic acid, etc. There are more than 50 of them that are advocated as vasodilators, and many have been extensively used to increase the blood flow to the skin.

Now in the last three or four years following the work of Elkin, of Harpuda, of Barker, and others, our concept of thinking of the use of these drugs in the management of these diseases has changed. If one uses a general vasodilating drug such as Priscoline, giving it by mouth or hypodermically into the vein or into the muscle, one gets a systemic effect of that vasodilating drug which dilates the healthy blood vessels, the blood vessels capable of vasodilatation all over the body. As a result with only a certain blood vol-

ume present, you have a shift of that blood volume into those healthy blood vessels and you very frequently have, as can be shown with a platysmograph or by temperature studies or even from the symptoms, a reduced blood flow in the diseased extremity.

Therefore, I think, except in those cases where vasospasm is a predominant factor and organic disease is minimal, the general acting vasodilators regardless of how they act are contraindicated in the management of this disease when given so that they have systemic effect. Therefore, all of these drugs which have been so widely advocated and particularly pushed by the commercial houses play very little role in the management of occlusive arterial disease.

But how can we accomplish vasodilatation if we do not use them? If we can direct a blocking agent toward the sympathetic fibers that supply the skin, then we can accomplish this.

The para-vertebral nerve block is a good example of the correct approach because you knock out the vasospastic factor in the extremity in which you are interested. One does not affect the blood vessels of the rest of the body, therefore, you will have a shift of the blood volume into the extremity where you want it. The surgeons follow this naturally with sympathectomy and there is certainly a clear-cut indication for sympathectomy in these cases of peripheral arteriosclerosis where one wants to preserve the envelope, and keep the skin from becoming gangrenous.

What about the advisability of introducing these drugs into the arteries supplying the extremity? Muffson has advocated intra-arterial histamine. Many others have tried other vasodilating drugs and theoretically the approach is good. Practically, there are many handicaps which I do not have time to discuss now. There is one, though, that I would like to point out. If you introduce a powerful vasodilating drug into an artery, as an example, into the femoral artery of a leg, with impending gangrene of toes, the immediate effect of that drug is on the blood vessels close to the area where you inject it. You open up the shunts between the arteries and the veins in the thigh and in the upper leg and you note increased heat here, but the toe where you are interested in obtaining more blood sometimes suffers for the same reason that I used in arguing against the general acting drugs. I don't believe intra-arterial therapy has too large a future role.

There is one method of vasodilatation which seems to have some value and it is the reflex method which we use diagnostically. I believe that most of the clinics treating occlusive arterial disease are using reflex heat as a part of their regime of management in producing vasodilatation. There are arguments why it would also fall in the class of general vasodilators, but from a clinical standpoint it seems to work to a reasonable degree.

The next problem that I pondered was that of the control of infection. One reason I think we are saving more extremities today is that we are better able to control infection. Infection is a big factor in the production of gangrene and in the production of localized thromboses which tend to extend.

There are a few points I would like to emphasize in the use of antibiotics in occlusive arterial disease. The organism which invades the skin may be one of many forms and we usually do not have the opportunity to culture it and find out what specific or most applicable antibiotic is indicated. There are, however, certain contraindications for some of the antibiotics, particularly penicillin, and yet I have seen more penicillin used in gangrenous, infected extremities than any other antibiotic. Our dermatological friends have shown us that there is a definite synergistic effect between penicillin and the fungi, and where one injects penicillin one frequently gets a flare-up of fungus infection with that serious complication. Therefore, the use of a wide spectrum-type of antibiotic without that aspect is indicated and we have had better success with some of the "mycin" drugs like terramycin and aureomycin.

These antibiotics have an additional side effect which many people do not think of but which should be recognized when they are used in conjunction with the anticoagulants. They sterilize the intestinal tract and reduce the formation of vitamin "K," and, therefore, they increase the prothrombin time of the blood, so that one has a mild anticoagulant effect from their use. If one is giving an anticoagulant drug and adds an antibiotic of this type, he very frequently gets a very sharp rise in the prothrombin time.

Antibiotics work best when they are given systemically so that you get distribution by blood, but because of the reduced blood supply one has to give adequate dosage since the concentration of antibiotics is naturally less because of the reduced blood supply to the part.

Local use of antibiotics has been rather disappointing. The sulpha drugs are irritating. Penicillin causes marked dermatological reactions, the "mycin" drugs perhaps less so. Terramycin or aureomycin, either in powder or ointment, or in water soluble base, seem to have some value where there is breakdown in the skin.

The final problem is that of prevention of thrombosis. When do we use anticoagulants and when do we not? Theoretically, any diseased artery is a potential site for thrombosis, and theoretically every such case should have anticoagulant therapy. However, because of the dangers of anticoagulant therapy, because of the cost, because of the duration of this pathology, it is not practical to use them in every case.

However, when one has an acute shutoff, due either to a thrombosis in a diseased artery or to an embolus, they are certainly indicated. I have seen a thrombus progress from the popliteal artery to the femoral artery in two hours and twenty minutes, and if heparin had been used in that particular case, it might have been prevented. But there is another reason to use anticoagulant therapy in these cases of acute shutoff and that is, they are frequently and seriously complicated by secondary venous thromboses. One often loses an extremity because of this complication and also one occasionally loses the patient because of embolism from the veins.

Therefore, any patient with an acute occlusion, while he is bed-ridden, should receive anticoagulant therapy. Any chronic case, which reaches a point where he has to be put to bed, should receive anticoagulant therapy during the time he is in bed, not only to prevent the development of arterial thrombosis but also to prevent the complication of venous thrombosis.

Now I have spoken most emphatically about the acute problem because that is where we concentrate our efforts, but we still have the individual who comes into our office because he can only walk a block. What are we going to do to increase the muscle blood supply? We are not interested in the skin in this individual. We want to get him so he can play his eighteen holes of golf or carry on his work.

The vasodilating drugs, if we follow my reasoning already presented, certainly are not going to increase walking distance. Unfortunately patients often report subjective improvement to almost any drug.

We have carried out double blindfold tests on all types of substances which are supposed to reduce claudication and have been convinced they do not do it. If we do a sympathectomy on these individuals we divert the blood from the muscles; we dilate the blood vessels of the skin and with the blood supply available more of it goes to the skin and less to the muscles. It is a frequent observation that after sympathectomy, one has a shorter walking distance than before the sympathectomy. Some of my surgical friends like to argue with me, saying that in the long run a sympathectomy will decrease claudication; at six months or a year later these people are walking further, two or three times further.

My answer is that if you take a man with arteriosclerotic disease and give him one simple piece of advice he will be walking just as far a year later as the fellow who has had a sympathectomy. That advice is to use his extremities within his tolerance. In other words, the best method I

know of that we have available today to develop collateral circulation to muscles is the use of hese muscles.

Some of the workers of this field have overdone it. They have urged these people to go to extremes in exercise. If you use a muscle with ischemia, in the first place it won't work and in the second place you may develop a thrombosis in some of the vessels supplying it. We see cases of acute shutoff, where a patient with intermittent claudication tried to catch a train or where he pushes himself to a point where he practically collapses. He then may find that, instead of walking a block, he can only walk ten feet since he has thrombosed an artery in his efforts to use the extremity with improper blood supply. On the other hand, if you teach these people to walk slowly, to walk frequently, and to use their legs as much as possible, they will develop improved collateral circulation.

I have made many friends over the last few years by telling patients to get back to the game of golf after they have been advised by some other physician that, because they have arteriosclerosis, they should quit playing golf. These people, at the end of a year, are frequently going eighteen holes without trouble where they couldn't get through nine in the beginning.

If these individuals do not use their muscles, they go on to atrophy and there will be no stimulation to the development of collateral circulation.

Mechanical aids have been used, such as the suction pressure boot, the oscillating bed, and intermittent venous occlusion. They all play a small role in the management of the acute and chronic case but each one of these mechanical modalities of therapy works best in the hands of those who devised them and who have trained technicians who know the details and the dangers and the complications of their use. Therefore, most of these modalities have been dropped. The oscillating bed probably has stood the test of time better than any of the others.

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THE SHOULDER GIRDLE SYNDROME

JERE W. LORD, JR., M.D.[1]

Attention will be directed tonight to the shoulder girdle syndromes, particularly as related to arterial flow, and only incidentally as related to neurological signs and symptoms and to venous obstructive phenomena.

The subclavian and axillary artery pass through a narrow bony passage invested with muscles and similarly the subclavian and axillary vein return through the same structures. The brachial plexus, however, is spared for the most part except for the two lowermost pathways of C8 and T1.

Anatomical structures that are important to both the artery and the vein are: One, the first rib. (This is aggravated in the occasional case when a cervical rib is present.) Two, both of these vascular structures must pass the scalenus anticus muscle, the artery behind it and the vein in front of it; three, they go behind the clavicle and four, underneath the pectoralis minor muscle, and five, the artery passes through the two cords forming the median nerve. At any one point or at several points, impingement may take place.

Historically, although the cervical rib was recognized as a syndrome as early as 1860, it was not until 1905, that Murphy observed neurovascular changes due to pressure between the cervical rib and the scalenus anticus muscle.

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Naffziger and Grant, followed by Ochsner, Gage and DeBakey, pointed out that you could have the same symptoms without a cervical rib due to pressure from the scalenus anticus muscle.

In 1943, Falconer and Weddell pointed out that without organic disease of the clavicle or the first rib, one could have postural abnormalities with pressure on the vessels by the clavicle approaching the first rib resulting in the costoclavicular syndrome.

Finally, Dr. Wright in 1945, described the hyperabduction syndrome wherein the arm in the position of hyperabduction due to work or sleeping or otherwise could interfere with the arterial circulation to the hand and lead to gangrene. Recently this has been pointed out to be due largely to pectoralis minor pressure.

The symptoms will depend on which of these syndromes are in effect, and on the structure they are pinching. The symptoms may be those of arterial ischemia in any position, or perhaps only upon assuming certain positions. They may be due to venous obstruction of an intermittent nature or complete in the form of thrombosis with edema, cyanosis, and heaviness of the arm with distended veins.

The neurological signs will be entirely limited to the ulnar nerve distribution in the hand and forearm.

We have focused our attention almost entirely on the arterial phase. Accurate diagnosis is the most important single point in the whole management, and from the arterial point of view it is relatively clear-cut. Surgical therapy follows simply. Cervical rib, of course, is usually a roentgenological diagnosis. A patient operated on recently at Bellevue entered the hospital, curiously enough, for rectal bleeding, but our residents, leaving nothing unturned, found out that the rectal bleeding was simply due to hemorrhoids, but much more excitingly, she had a partial paralysis of the ulnar nerve. Therefore, she was studied more carefully and suspected to have a large cervical rib. X-rays confirmed it, just as Murphy pointed out many years ago. The roots of C8 and T1 were elevated significantly, and after removal of the rib, they fell downwards. The artery was also fully released. Immediately, postoperatively, on awakening, her hand felt better.

In the four years we have been studying these various syndromes, only twenty cases have come to operation. The vast majority—this is particularly true of cervical ribs—are non-surgical and most often are not even symptomatic and require no therapy.

The scalenus anticus syndrome is the one we have steered most clearly away from. First of all, when they are purely neurological, they have usually been seen by the neuro-surgeons and not by ourselves. We have operated in the last four years on the scalenus anticus syndrome only in two cases.

The method of demonstrating the scalenus anticus syndrome is to adduct the arm to the body and observe the radial pulse. For example, a patient I saw today in the office, operated upon a year ago, pre-operatively had an imperceptible blood pressure in the left arm in adduction. When the arm was elevated to ninety degrees, the blood pressure reappeared, and the oscillometric reading was normal. She also had neurological symptoms in the distribution of the ulnar nerve and following scalenus anticus section has done well, both from the vascular and neurological viewpoints.

The demonstration of the costoclavicular syndrome is best illustrated by our Chief Resident at Bellevue who completed his training four years ago. He was an air force pilot and was unable to keep a parachute strapped to his back. When he would assume the "West Point position" with his shoulders back, the radial pulse on the left side disappeared completely. When he was relaxed and slumped as a typical surgeon does, and I'm a good example, his pulse would then return in full strength and his blood pressure would be normal. Whenever he would thrust his shoulder back into the usual proper stance, the clavicle would press on the subclavian artery

and completely obliterate it. He was unable to keep a parachute on his back, having to remove it as soon as it was possible to do so without being observed. As a surgeon, of course, he is in an excellent occupation, having no trouble slumping forward. Whether he will have trouble in the future and have an arterial thrombosis, I do not know. On the basis of our present experience, I predict that as he reaches the fifties, he will have a thrombosis of his subclavian artery and would probably be better off with the procedure which I will describe. In the meantime, however, we are not on sure enough ground to recommend such a prophylactic procedure.

The costoclavicular syndrome, therefore, is demonstrated by having the patient stand erect, and thrusting the shoulders back and downward as though he were carrying two heavy buckets of water. The radial pulses are palpated during this maneuver, and if they obliterate, it is suggestive that the narrowed costoclavicular space may be the cause of the patient's ischemic symptoms.

The hyperabduction syndrome is demonstrated by elevation of the arm well above the head. In that position in approximately a third of all normal people, the radial pulse becomes much feebler, and after holding that position radial pulsations may return to a moderate degree. In a small percentage of asymptomatic people the radial artery can be demonstrated to remain completely obliterated as long as such a position is maintained. Such individuals, if they make a habit of sleeping in a position of hyperabduction for long periods, or of working in that position, for example grease pit mechanics, and painters who have to paint well above eye level, as well as telephone operators where the plugs are above their heads, will develop serious trouble due to ischemia.

Approximately nine out of ten patients with manifestations of these various syndromes can be managed on conservative measures. Representative of this group is the hyperabduction syndrome. The first patient Dr. Wright saw was an individual with an obscure gangrene of the tips of his fingers and all that was found was that he was sleeping regularly in a position with his arms behind his head. When that fact was recognized and there was no arterial occlusion, no venous occlusion, no Buerger's phenomena, etc., treatment consisted simply in tying his arms so that they could be elevated only a few inches during sleep. The whole chain was broken and eventually his fingers returned to normal.

The costoclavicular syndrome can be counteracted as I mentioned previously in the example of the surgeon who simply avoided the erect posture. Dr. Huebner had a patient who was overweight and who had large pendulous breasts. Her brassiere pulled strongly down on her supraclavicular area causing obliteration of the pulses, and by simply changing the type of brassiere to an uplift one, and with weight reduction, she was relieved of her symptomatology.

About half the patients we have operated upon have not only had intermittent blocking to the arteries, but have also gone on to develop complete arterial thrombosis. The group of patients who had thrombosis have done well on measures designed to create space where the artery arises from the intrathoracic region to the axilla eliminating all points of pressure, either bony or muscular.

One of two patients we operated upon at Bellevue Hospital recently had had a thrombosis of her subclavian artery following childbirth. The reason was unknown except that possibly she was sleeping in a position of hyperabduction. The thrombosis led to marked ischemia of the hand and when seen at Dr. Duryee's clinic at the University Hospital about six months later, she still had all the signs of marked arterial insufficiency.

Operation disclosed that the block had occurred in the subclavian artery at the medial border of the scalenus anticus muscle. Attempts to restore continuity were not carried out because of the extensive length of the thrombosis. However, a procedure which I will describe was utilized.

When the hyperabduction syndrome is a pure and isolated phenomena, then an operation designed by Dr. Fred Cooper of Atlanta has been singularly successful. He has had three patients who have had good results with a "follow up" for over two years. We have had three who have done well for a period of one year, one month and one week respectively. These patients have had marked obliteration of their pulse on abduction to ninety degrees or beyond. They have had no thrombosis and good pulses are present when the arm is by the side. Section of the pectoralis minor muscle, a simple procedure to perform, has been uniformly satisfactory.

The first patient in whom we carried out this procedure of making room for the vascular structures was a woman who had congenital double clavicles bilaterally. There was non-union in the mid-portion, however, the clavicle had never been injured. She developed arterial thrombosis of the left subclavian artery at the age of forty-five, and at the age of fifty thrombosis of the right subclavian artery developed. She had marked evidence of arterial insufficiency and absent oscillometric swing in both arms. She was operated upon by removal of both segments of the right clavicle, section of the scalenus anticus muscle and mobilization of the subclavian artery downwards. The thrombosis was lateral to the scalenus anticus muscle. Following this procedure, the pulse returned within one week and we then went ahead with the procedure on the other side which had thrombosed five years earlier. The left side improved. We were therefore led to the concept of developing room in this area on the anterior side rather than attempting to remove the cervical rib or trying to develop room posteriorly. The beneficial result was obviously an improvement in the collateral circulation due to the elimination of mechanical pressures.

We have done this operation now on some thirteen patients comprising seventeen extremities over a period of three and a half years. It is evident that it has not been applied frequently, but it has been uniformly successful when arterial involvement has been paramount. In one patient where there were only neurological symptoms of a vague nature, we regretted carrying out the procedure because it did not afford relief.

The operation, in outline, is to expose the clavicle and resect it subperiosteally in toto. Elkin and Shumacker have described the removal of the clavicle for blood vessel exposure, and the late Dr. Frazer Gurd, of Montreal, wrote some fourteen years ago that in his experience the clavicle could be sacrificed without any serious disability. In the seventeen extremities operated on, we have not seen any disability except for two heavily muscled men who have subjective complaints of aches and fatigue in the pectoralis major muscle. Perhaps in the latter isolated type of patient, a heavily muscled man, it should be considered with some seriousness.

In the first two patients having normal clavicles, we made room by removing the middle half of the clavicle leaving the lateral and medial quarters and dividing the scalenus anticus and mobilizing the artery downwards. To our chagrin, in a period of four or five months the clavicle regenerated and led to a return of symptoms. We had to go back and remove the regenerated part of the clavicle plus the lateral and medial segments and the periosteum.

After the first three patients, the operation became a planned procedure wherein the clavicle was removed totally subperiosteally and the periosteum was excised so there could be no regeneration. With this procedure there has been regeneration of only one clavicular segment in one patient, about an inch long laterally. We obviously missed some of the periosteum. In addition the scalenus anticus muscle is located, isolated, and the phrenic nerve retracted. After the muscle is divided, its ends usually retract. This effects good exposure of the brachial plexus and the subclavian artery which can be mobilized down after freeing it from the surrounding structures. We have not divided any of its branches.

Even though there has been thrombosis in this region, either proximally or distally, this proce-

dure has been followed in each instance by an improvement in the arterial circulation to the arm with usually a normal oscillometric index ensuing eventually. The three reasons we believe it helps is that 1) it eliminates all pinching in the scalenus anticus region whether there is a cervical rib present or not. 2) It eliminates any possible pressure between the clavicle and the first rib, a space which in some of these patients is extremely narrow. It eliminates pressure between those two structures as well as pressure on the subclavian vein. 3) It permits the shoulder, after the clavicle is removed to fall inward towards the thorax, also it lengthens the artery relatively and hence eliminates pinching behind the pectoralis minor muscle.

Function is unlimited and there is no obvious physical deformity. The only thing they can do is that old trick of bringing the acromii forward and having them meet.

Two interesting cases are cited briefly: A graduate nurse was operated upon approximately two and a half years ago. She had a large cervical rib on the right side and had developed intermittent fatigue of the arm when she used it. Typing became harder to do and Raynaud's phenomena of the fingers were noted. Finally she came to the point where she could not use her hand. She was examined by Dr. Wright who found the radial pulse reduced in volume and the oscillometric swing subnormal. In certain positions the blood pressure was almost equal to the other side. Ten days after his observation and after I had seen her in my office prior to admission to the hospital, she developed a complete thrombosis of the subclavian artery. At operation the cervical rib and the scalenus anticus muscle were found to be pinching the artery so that it was almost pancaked. Distally there was a fusiform aneurysm about seventeen millimeters in diameter and beyond this point the artery was thrombosed due to the narrow area between the clavicle and the first rib. She was subjected to claviculectomy and section of the scalenus anticus and now is in exceedingly good condition. Her Raynaud's phenomena have cleared in all but one finger. The radial pulse is normal in both arms and she is able to work full time.

About four months ago we had a patient who in 1927 (she is forty-two years of age now) sustained a bilateral fracture of the clavicle in an automobile accident. Malunions resulted, and, therefore, open reduction of each clavicle was performed. Good union occurred on the right side, but on the left side nonunion with overriding occurred. This did not bother her from 1927 until the summer of 1953 when she noted an increase in the size of her left arm. Measurements confirmed the enlargement. The superficial veins were distended. It was clear that she had had a subclavian vein thrombosis. That was not too serious until suddenly her artery began to be pinched and she lost the strength of her arm. An X-ray showed nonunion with overriding of the clavicle with the distal segment pointing inwards and downwards. At operation it was seen to be pressing firmly on the subclavian artery. Following its resection the artery pulsated normally and the arm could be moved in all directions without limitation. The patient is now four months postoperative. She has a good result following simple resection of both ends of the un-united clavicle.

At the present time we reserve the complete operation for patients with the costoclavicular syndrome when combined with either the hyperabduction or scalenus anticus syndrome. If the scalenus anticus is alone responsible, we section it and nothing more. If the hyperabduction alone is responsible, we section the pectoralis minor.

In summary, the two points I would like to emphasize are, (1) surgical intervention for the shoulder girdle syndrome is not commonly necessary. In four years we have operated upon only twenty patients. Secondly, if the diagnosis is not accurate, many bad results will be seen by using operative measures. That has been seen with the indiscriminate sectioning of the scalenus anticus, and it has been very disturbing. Unless these pa-

tients are diagnosed accurately and first have good medical management, we are going to fall into many pitfalls. On the other hand, as in many other fields of medicine where surgical therapy plays a significant role, accurate diagnosis based on a careful analysis of the patient's symptoms and signs is the most important factor. Accurate diagnosis will in turn lead to the selection of the correct surgical procedure and hence to worthwhile results.

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QUESTIONS AND ANSWERS

DR. FORT: Thank you very much, Dr. Lord and Dr. Duryee. Our speakers would be very happy to answer any questions. Dr. Loughrie will have the portable mike and if you care to he will hold it to you so that you may ask questions.

Q. Have any exploratories been done in cases where the diagnosis cannot be established from "lab" or clinical test?

DR. LORD: I feel you must be on absolutely rock-bottom ground of peripheral changes in the artery. That is, you must have evidence of arterial impairment, either intermittent or complete before you consider an exploratory in this region.

As Telford, who probably is the leading student of this subject in England, pointed out, one should be prepared to really look in this region and not have too many preconceived notions. Fortunately except for section of pectoralis minor, all of the procedure in this region can be carried out through the same incision. Therefore in that sense one can carry out an exploratory procedure. I would never carry out an exploratory operation in this region for symptoms in the hand without absolute objective evidence of arterial, venous or neurological changes. It should not be done for subjective pain without confirmatory objective signs.

Q. To what extent do you use anticoagulants post-operatively?

DR. LORD: I think the philosophy of using anticoagulants in general and in my own personal experience, is similar to that of Jahnke and his associate, Seeley and others with their military experience in arterial injuries and aneurysm and fistulae, namely, not to use them. The only exception in this group of cases is in one patient, I think the one I cited but didn't show you the slide, had an aneurysm and arterial thrombosis, as well as a previous deep vein thrombosis. She developed a new thrombosis postoperatively of a superficial vein in the neck which we had divided, and we felt that she might get into more serious venous trouble so we put her on anticoagulants postoperatively. That would be the only indication, I believe.

Q. I wonder if Dr. Duryee can mention something about the use of alcohol in the treatment of peripheral vascular diseases?

DR. DURYEE: I do not have any statistics as to how many drunkards we have made in this field, but I am sure we have made a few. The use of alcohol as a therapeutic agent has been long advocated in the medical management of these cases. I am not sure how it works. If it acts as a vasodilator then my theory of a general acting vasodilator would contraindicate its use. I think it has another action.

Alcohol, as most of us know, sort of releases some of our tension, and I think a great deal of the relief we get with alcohol is a mild anesthetic effect and released tension. I'm not too sure it is of great value in the management of these cases.

Q. I'd like to ask Dr. Lord his point of view toward lumbar sympathectomy in arteriosclerotic peripheral vascular disease. Is he as "on the fence" about it as Dr. Duryee was?

DR. LORD: I think the nicest thing that I have had said about me was said by Dr. Duryee earlier in the evening, that I was one of the surgeons

who thought a little bit medically. This is to me the epitome of all compliments. But frankly, I feel exactly the way he does, I think lumbar sympathectomy is the most over-rated operation ever developed except that it has real value where there is some degree of vasomotor tone. I don't think it makes any difference whether there is Buerger's disease or arteriosclerosis or Raynaud's. If you can demonstrate some degree of vasomotor tone and you are not getting where you want to on medical measures, then lumbar sympathectomy or upper thoracic sympathectomy is an excellent procedure. But to do it when there is no vasomotor tone demonstrable, as many of our confreres, particularly surgeons, have emphasized throughout the country, then I have not seen any magic from it. Our residents at Bellevue and Gouverneur Hospital are just as happy to operate on a patient as they are most every place else. Lumbar sympathectomy is a nice, clean, decent operation to do and therefore we have had to restrain them rather vigorously, but I think they agree too, that it is a useless operation when there is no vasomotor tone. I think it is a question whether there is some vasomotor tone. As Dr. Duryee has pointed out in using the Landis test or using the paravertebral block we always test that first unless clinically it is obvious that they have vasomotor tone, as in an aneurysm. When you are going to do a Matas' obliterative endoaneurysmorrhaphy routinely do a lumbar sympathectomy before or complimentary to doing a Matas' procedure. For the type of patient Dr. Duryee is talking about I don't think we have done a dozen cases in four years on our wards or in private practice altogether.

DR. DURYEE: I would like to elaborate on this question. I'm sorry if I left the impression I was "on the fence" because I have some pretty clear-cut ideas and they could be summarized very briefly. One is that you do not do it for intermittent claudication. Two, you do it only where you want to increase the blood supply to the skin and you do it only in those cases, as Dr. Lord has pointed out, where one can demonstrate that you will get a better blood supply to the skin if you do it.

Q. Would you describe the reflex method of treatment of peripheral arterial disease?

DR. DURYEE: The method we use is simply the application of heat to the upper part of the body. Where one has the usual common problem of a cold extremity with arterial occlusive disease with perhaps some rest pain after the patient goes to bed, we apply an electric pad or hot water bottles to the upper thigh, lower abdomen, or across the back, leaving them on for long hours at a time. Actually some of these people sleep with an electric pad over their lower back or abdomen or thigh. Keep the heat as a reflex heat and never in direct contact with the ischemic tissue. In some cases where the amount of blood flow is markedly reduced and there is constant rest pain, we use several hours of immersion of the arms in water at one hundred ten degrees, exactly the same thing we do in the reflex test.

Q. What is your feeling about the use of endarterectomy or segmental resection in thrombosis of the femoral artery of the lower extremity?

DR. LORD: We have had bad luck with treatment of popliteal and femoral occlusion. We have had better luck with the aorta and iliac artery. We may have stumbled on something the other day but like the murderous significance of a single case one shouldn't draw conclusions. Our problem has been that we have only done patients who have had gangrene and were going to lose their extremities, some nine or ten patients, and we have had our problems with endarterectomy. Everything is fine at the upper end. Dr. E. J. Wylie last year at the meeting of the American Heart Association stated that at the upper end wherever one starts the endarterectomy, he dissects the intima and the thrombus, and when he reaches the lower end where the vessel is patent, he bevels the intima like a ski jump, but we have never been able to do that.

The intima has to start where you have

stopped your endarterectomy, and we have tried mattress sutures to tack the intima to the media, but it has probably failed to prevent dissection. We learned something quite by accident, and it may be significant or it may not be. There was a thrombosis of ten years' duration in the external iliac artery and a two week old thrombus in the common iliac that had led to impending gangrene. On dependency the foot showed marked rubor and a thirty-five second venous filling time. We exposed the entire common and external iliac artery down to the femoral. We exposed the femoral artery first to prove it was patent and didn't do an aortagram because I have observed more trouble than good from some aortagrams. After demonstrating its patency, the incision was carried upwards and then it turned out we had to take a seventeen centimeter segment out, and there was no graft that long in the arterial bank. So what we did was to do a nine centimeter thrombo-endarterectomy from the common iliac down to the inguinal ligament and then we removed eight centimeters of the common and superficial femoral artery and put the graft in at that point. . . . So we had a nine centimeter endarterectomy with the thrombus out and then an end to end anastomosis between the resutured vessel and the graft and also to the distal femoral, with a nice intima to intima approximation. We did not use anticoagulants on him. He went home about two weeks postoperatively with good pulsation below and a good foot.

We therefore use thromboendarterectomy from the terminal aorta to the upper superficial femoral artery with or without a vein or arterial graft.

Q. There are circumstances which arise where the envelope as well as the muscle ischemia is present. In those equivocal circumstances would you be obliged to recommend sympathectomy or would you be obliged not to recommend sympathectomy?

Dr. Duryee: You rarely see gangrene, primary gangrene, of muscle. You frequently see it of the skin and if the ischemia is advanced to a point where you are afraid of gangrene, possibly losing the extremity because of that, I'd be in favor of sympathectomy providing, as I said, we could demonstrate some vasomotor index. George Brown said you had to get a six degree rise in temperature before you do a sympathectomy and Dr. Addison working with him used that measurement. I think that is a little liberal. If we get a rise of even two or three degrees, we'd go ahead and do a sympathectomy on that type of case.

Dr. Fort: Are there any further questions?

If there are no further questions I think it would be very nice to ask Dr. Trimble to say just a word.

Dr. I. Ridgeway Trimble

I was afraid I wouldn't have an opportunity, Dr. Fort.

First of all I would like to say how much I enjoyed Dr. Duryee's and Dr. Lord's presentations here tonight. We, in Baltimore, are quite interested in peripheral vascular disease.

Now just before the war down at Baltimore City Hospitals, a number of us here tonight became interested in it. George Yeager and myself, and others who were working with us, became interested in some of these older men down there who had lost one leg, and you know a man who has one leg remaining can get along pretty well but when he loses both he is pretty helpless and destined to a life in bed or in a wheel chair.

So we decided to do something for these men and began with sympathectomy on the side of the remaining leg, even though the index of improvement after block or after reflex warming was not great. Up to that time the index had to be great before sympathectomy would be done.

We found to our gratification that many of our most favorable responses were in those cases in which the preliminary tests were not encouraging. It may be because you cannot block the sympathetic function as well by test as you can by dividing the trunk.

I think it is perfectly true that they are pa-

tients in which sympathectomy is contraindicated. On the other hand there are two reasons why we do sympathectomy. One is to improve the walking distance, as has been said, to improve the function of the limb. The other is a prophylactic measure, to improve the circulation of the skin, subcutaneous tissue and muscles as a prophylactic measure against gangrene developing at a future time. I have many patients active and comfortable after sympathectomy done 5 to 15 years ago who without sympathectomy would now be amputees. So we tell these people there is two-fold purpose for our operation.

Now, you are going to hear more and more about the replacement with arterial graft when that is feasible, and it will become more feasible as our studies in the arteriography become more developed. Nevertheless sympathectomy in a great majority of cases is in my opinion strongly indicated and I have operated on very many cases where the walking distance is increased.

I was rather much surprised to hear that Dr. Duryee is not using it in those cases.

I do think if you have no pulses in the pedal vessels and the popliteals, even up in the femorals, then sympathectomy may not help their walking distance. But if you have some pulses still present or if you have even good femoral pulses present, many of the patients will tell us they can walk as far as they want to within reason. Others will tell us their pain, their cramps, have been changed, substituted for by a tired feeling after walking a certain distance but they are eternally grateful not to have cramps. Practically all of them can walk a greater distance and I don't think it is a greater distance because of walking more slowly, although I heartily agree with Dr. Duryee about keeping patients mobilized.

Finally, I would like also to agree with him on his treatment of infections and recommend for your own interest some work that was done here by Dr. Classen, who is here tonight, on the treatment of infections in the extremities by the simple remedy of combatting the epidermophytotic infections about the toes by immersing the feet in potassium permanganate solution. We find that that simple remedy in so many of these patients will heal the lesions, and will improve them so far as rest pain is concerned. The fungus infection plays a great part in starting off this train of events. I'm sorry we didn't hear more about the direct approach to the arterial grafts on this problem.

Last of all I would like to ask those present to bring the patient with acute arterial occlusion to the surgeon more quickly. Many of us have seen results that are terribly disappointing when the patients are brought too late, but recently we have had a patient of Dr. William Pierce with a saddle embolus at the base of the aorta, and operated on her three hours after the event occurred. We were able to remove the saddle embolus from the aorta; and instead of developing bilateral gangrene of her legs assuredly and dying, she recovered perfectly.

Another case was just recently successfully operated three hours after onset with a brachial artery occlusion. It is generally recognized in these cases that if the period of six hours has elapsed before they are treated surgically, we can do very little for them.

DR. FORT: I think it would be very nice at this point for Dr. Yeager to talk to us.

DR. GEORGE H. YEAGER

I have very little to add to what has been said tonight. I share Dr. Trimble's comparative enthusiasm for sympathectomy. I am perfectly willing to agree that it must be a selective procedure and that some patients may be harmed by it. However, I do not believe that all patients have to have a demonstrable degree of vasoconstriction expressed in two, three, or four degree centigrade of vasospasm, to justify the operation.

At this time, we have no completely accurate method of determining the vasomotor index. Paravertebral block, as performed in the average clinic in testing these individuals, is a pretty in-

accurate study. It is an infiltrative procedure fraught with many potential errors.

I believe that all patients should be thoroughly evaluated from the viewpoint of sympathectomy, and certain cases should be screened out.

Dr. Trimble has referred to some of our City Hospital patients. Many of those patients have border-line viability of their surface structures. Le Riche coined a phrase of "self-sympathectomy." Such an entity is seen in many sclerotics. Nevertheless, when one is dealing with a crisis, such as a breakdown in the viability of the epithelium, one, two or three degrees rise of temperature may become very important. Many times these patients will obtain subjective relief.

I was particularly interested in Dr. Lord's reference to the shoulder girdle syndrome. I would like to know whether he has seen venous thrombosis in this entity.

Some years ago, Dr. J. A. Kirtley advocated almost an identical procedure for spontaneous axillary thrombosis, such as seen in the emphysematous type of individual. He combined it with a very extensive supraclavicular dissection in which all the surface fascia was excised.

I would like to hear Dr. Duryee discuss his use of Buerger-Allen exercises.

Further Discussion

Dr. Lord: It's mighty unfair to come to a City and take away all the surgeon's business by saying it's no good. I frankly think sympathectomy is a very valuable operation and it should be done. However, only in selective cases where there is evidence of vasomotor tone.

As George Yeager pointed out, it doesn't always follow that a rise in temperature is necessary. Occasionally one will get a good blood flow postoperatively in spite of the absence of temperature change in postoperative testing.

Frankly, I like to use not just a skin temperature but rather use the appearance of the foot. Now the foot is a little moist, the veins are collapsed, there is a little cyanosis and you do a paravertebral block or do a Landis test. The foot becomes pink and the veins dilate, the foot becomes dry, and you have evidence of vasomotor tone. You don't have to have a rise in temperature. We have had several cases at Bellevue and some in private practice without any rise in temperature using the ordinary thermocouple and the constant temperature room, who have done well after sympathectomy. If you have no improvement in color, no rise in temperature, if you have no filling of the veins or they are already partially filled, in dependency and they are collapsed at heart level, I have never seen a sympathectomy have a favorable effect. Although I have the most immense respect for Dr. Trimble who pioneered this field in his original articles back in 1939–1940–1941, we have done this at Bellevue which is a hospital exactly like the one at Baltimore City Hospital and in the same class of patients. We have also done it in private practice while exploring its limitations. Where there is no vasomotor tone we have not had good results. But vasomotor tone does not have to be based on a four to six degrees temperature rise, it can be based on the things I have just mentioned.

In regard to Dr. Yeager's question about venous thrombosis, about half of our patients of the twenty operated upon (there were about twenty-six limbs in all), have had venous thrombosis in their background. Any procedure we have done has not improved the venous thrombosis per se. It has gone its merry way which has usually been marked improvement over a period of time, with elevation or wearing an elastic sleeve like an elastic stocking. The operation has not made it better nor has it made it worse.

I am familiar with the operation of Dr. R. S. McCleery and Dr. J. A. Kirtley and their associates. Frankly, I have not applied it. We believe our procedure does the same thing but as I say it does not have any favorable effect nor deleterious effect on the venous thrombosis.

Dr. Duryee: Just as a last stab at this prob-

lem of sympathectomy for claudication, I am going to make a plea instead of a statement.

We need to have somebody develop a good objective method of measuring exercise tolerance. I agree one hundred per cent with Dr. Trimble that for the preservation of the limb, and in these people with one leg off and with the possibility they may get a breakdown and gangrene in the other extremity, sympathectomy is definitely indicated. The problem of its use in intermittent claudication I still think is an undecided one, and in order to decide it somebody has to develop a treadmill or some type of apparatus to actually demonstrate whether these people have a better blood supply of the muscles after sympathectomy.

The radioactive isotopes are our hope and they may still be the answer but so far we have been unable to develop any satisfactory system measuring muscle blood supply. Princemetal, Elkan, Quimby, etc., who have used them, haven't developed an accurate method of measuring the blood flow to the muscle. You can do it to the extremity as a whole but to differentiate the subcutaneous tissue and the skin, etc., hasn't accurately been done to date.

Now the final question, Dr. Yeager, is about the use of Buerger's exercises. I said in my discussion that the only mechanical gadget that has stood the test of time is the Saunder's bed and I believe that the passive use of Buerger's principle of elevation and dependency on this bed where the individual doesn't have to use his muscle in the advanced case with impending gangrene with rest pain, is of real value providing that bed is adjusted to the individual so that no long periods of ischemia develop during the cycles.

Now as far as the active use of Buerger's exercises is concerned, I believe in the majority of cases one can accomplish as much by just having the patient walk within his tolerance.

There is a borderline group where the walking distance is very short, where there is no impending gangrene and claudication is the only symptom, where perhaps the active Buerger's exercises help. However, if one follows the work of Wilkens and measurements of blood flow in the leg in various positions, probably simple elevation at the head of the bed with dependency will do almost as much.

DR. FORT: Are there any further questions?

Once more I would like to thank both you gentlemen for coming to be with us and your time and efforts in our behalf.

Meeting adjourned.

SELECTIVE SERVICE RESUMES PROCESSING OF PHYSICIANS

The AMA Washington Letter, No. 65

For the first time since last August, local draft boards are again processing physicians for induction under the Doctor Draft act. Selective Service headquarters on March 25 ordered draft boards to resume processing for physical examination and induction of priority 1 and 2 physicians of all ages, priority 3 physicians born after August 30, 1922, and priority 1, 2, and 3 dentists of all ages. Selective Service explained that it expected at any time to receive an armed forces call for physicians. Calls for dentists in March, April and May already have been allocated to the states.

The government halted drafting of physicians last summer after the Korean truce and a high percentage of young physicians entering the service on completion of their internships had produced a large reservoir of medical manpower. The last call for physicians was for 542 in August.

ARTICLES OF INTEREST

DOCTORS' DAY[1]

ARCHIE ROBERT COHEN, M.D.[2]

Speaking for the physicians of Washington County, we are happy and proud that the Governor of our Great State, the Honorable Theodore R. McKeldin, has honored us with his proclamation of "Doctors' Day," March 30, 1954.

The date of March 30th was not chosen at random, but is in commemoration of one of the greatest discoveries, for the alleviation of pain and suffering that our great country has yet produced. It was on this day, in 1842, when ETHER was first used as an anesthetic agent on a human being. Ether was not a new chemical at that time. It had no known use on the human body. It was known, however, that the inhalation of ether fumes would produce exhilarating effects. Inhalation was practiced for this effect at country parties, particularly in the South. Undoubtedly this was used in the same manner as alcohol in some individuals, also producing an exhilarating effect.

We have documentary evidence, that ether frolics frequently were held, the men present would inhale the fumes of the ether vapor and this practice sometimes formed the chief entertainment at these parties. These ether frolics probably suggested the use of this agent as an anesthetic, for during the frolics, the stage of excitement occasionally led to unconsciousness and loss of sensation.

Dr. Crawford Long of Georgia, having observed the loss of sensation incidental to injuries received during ether frolics, concluded that sulphuric ether might well be used to allay the pain of surgical operations. We must remember that prior to this time, there was no anesthetic available; operations that were done proved to be heroic affairs. The patient was drugged with opiates and stimulants, wheeled into the operating chamber where strong men helped to hold the patient in place, should the restraints prove ineffectual. Many patients refused to undergo surgery even when a simple operation may have proven life-saving, purely because of the pain and suffering that occurred during the period of the surgery.

Therefore, on a date that we historically set as March 30th, 1842, Dr. Crawford Long administered ether to a young man, a Mr. James Venable and successfully removed two tumors from the man's neck.

The proclamation honors the entire medical profession, not only your family physician, whom you call in time of illness, but in addition the surgeon in the immaculate operating room who has been called into consultation by your family physician; the pathologist in his laboratory of the hospital, where the necessary tests of the blood and other materials of the body are performed; the research physician who devotes his life to the study of causes of disease; the public health physician who has made a long study of the relationship of various diseases and infections to the health of the general public and the methods to be used in the prevention of these illnesses; the radiologist who through the use of X-ray is able to explore and diagnose conditions in the deeper portions of the human body; the atomic physician with his Geiger counter, and study of the effect of radiation on experimental animals and unfortunately on some humans; the bacteriologist and the virologist who work with research physicians in the study of cause and effect.

We feel too, that this proclamation honors the fine citizens of our community who have given so much of their time to serve as members of the Board of Trustees of our modern, fine hospital; the administrator of the hospital and each and every one of the employees of the hospital.

We feel too, that this proclamation honors the Nursing Personnel who so kindly minister to us when we are ill; the physical therapeutist and the occupational therapeutist, who through physical

[1] Presented by Archie Robert Cohen, M.D., over radio station WARK, Hagerstown, Maryland, on the occasion of Doctors' Day, March 30, 1954.

[2] President, Washington County Medical Society.

means and mental occupation, aid in healing sick bodies and minds; the volunteers that work in the hospital to make the waiting hours so much more pleasant and less dreary; the secretaries to the physicians with their ability to keep a smile at the end of a trying day; and last but not the least, the wives of the physicians who are always on the job, serving meals to husbands at irregular hours, who are often disappointed as to pre-arranged plans when the phone call changes everything, always sending along the wire a note of cheer and advice until the doctor can reach your home.

Medicine has travelled a long way down the medical progress road in a fantastically short time. Today America is the healthiest large nation in the world. Babies born today can expect to live at least twenty years longer than those born in 1900. Women can face childbirth with little or no fear for the chances of surviving pregnancy. The dreaded diseases that were once killers—typhoid fever, small pox, diphtheria, pneumonia and many others—have been brought under control.

Since 1900 while our total population has more than doubled, the number of persons 65 years of age or older, has more than quadrupled. This accounts largely for the marked rise in death rates for heart disease, cancer and other diseases of old age.

Within a few decades, vitamins, sulfa drugs, antibiotics such as penicillin and the various mycin drugs, hormones, all have been added to the physicians armamentarium against disease. Surgeons today are performing delicate life saving operations on the heart, lungs, brain, stomach, kidneys and other vital organs which just a few short years ago would have been impossible.

Some critics point to the increasing death rate from heart disease and cancer as an indication of a medical crisis. Actually, this is a heartening sign of great medical progress. The median age at death in the United States has jumped from 30 to 66 years. Twenty years from now, although the death rate from certain diseases in our aging population may be higher, the length of life will be greater and the mortality rate for each age will be lower. Health progress and the number of deaths each successive year are simply two different ideas. A physician can never conquer death—he can only postpone it. Persons who are saved by medical advances and skills from death at an early age, later fall victim to the degenerative diseases which now appear to be increasing.

A serious shortage of doctors has been alleged. Actually, we have more doctors than any other nation and we have more in proportion to population than any other country. For more than twenty years the supply of doctors has been increasing at a faster rate than the general population. It is estimated that the next ten years will bring another 30 per cent increase in the supply of physicians. Today we have a total of 220,104 physicians, the largest in our history. Of this number 159,120 are in active practice. All the rest, except 9,700 who have retired or given up the practice of medicine for various reasons, are serving American health needs in research, in teaching, in hospitals and in government service. On the basis of the estimated population approximately one physician is actually engaged in the practice of medicine for every 1,000 persons.

It is estimated that the efficiency of the average physician has increased about 30 per cent in the past fifteen years. This has come through the use of new drugs and antibiotics, new or improved techniques, modern equipment, increased auxiliary help from laboratories and technicians, improved transportation and communication and better coordination of all medical facilities.

Your doctor has spent a great many years in preparation for the day when he should be called to administer to an ill person. After his high school education has been completed, there are four years of pre-medical education and then four years of medical studies before he or she is ready to take the State Board of Medical Licensure examination. To be eligible for this examination the applicant must have graduated from an approved medical school of which there are approximately 80 in the United States, or from an approved foreign medical school. After successfully completing the examination, most of the physicians then spend several years in internship in a hospital that has been approved for intern training and at the present time, our hospital is approved for this training.

In addition to the above listed medical education already obtained by your doctor, he is constantly studying to further his medical knowledge and thus be enabled to treat you more efficiently, by use of newly discovered drugs and procedures. This study

consists of various meetings at the hospital, where your doctor spends about four hours each month in these meetings, in group discussions of the department in which he works or at general staff meetings.

At these general staff meetings, cases in the hospital, or recently discharged from the hospital, or deaths are thoroughly discussed; methods of diagnosis are reviewed; newer forms of treatment are described. All in all, these meetings serve as additional checks and balances as to the thorough care and treatment required for all cases admitted to the hospital.

Besides the hospital meetings—and your physician is required to attend 75 per cent of these meetings to maintain his membership on the staff—your doctor is a member of a number of other medical associations, which hold scientific meetings at least once a year, and often twice a year. A few of these are, the American Medical Association which meets for several days twice a year; the Medical and Chirurgical Faculty of the State of Maryland which holds two scientific sessions a year; the Washington County Medical Society, which has at least four scientific sessions a year. In addition to all this, your physician is a member of the Specialty group in which he limits his practice or of the American Academy of General Practice, if he is a general practitioner—and most of the general practitioners in this county are members of the American Academy of General Practice. The latter group has a yearly convention of several days as well as frequent seminars for review and brushing up in the newer techniques.

The same holds true for the various specialty groups. A few of these by name are the American College of Surgeons, the American College of Physicians, the American Academy of Pediatrics, the American Board of Obstetricians and Gynecologists, the American Board of Ophthalmology and Otolaryngology, the American Board of Radiologists and other similar groups.

In view of the progress being made toward solving our health problems, we have reasons for encouragement but not complacency. The Washington County Medical Society has always accepted and carried out the responsibility of leadership in safeguarding the public health, raising the standards of medicine and making good medical care available to the people of our community.

We again thank our Governor for his thoughtfulness in proclaiming this day as "Doctors' Day" and to all of the people of our community, who have helped us so much in the observance of this day, we say, Many Thanks.

Clear Spring, Maryland

VOLUNTARY HEALTH INSURANCE—AN APPRAISAL AND A LOOK AHEAD[1,2]

CARROL M. SHANKS

President, The Prudential Insurance Company of America

I am very appreciative of the opportunity to talk to you this afternoon—particularly so since you and the state medical societies you represent will be such potent factors in determining the future course of voluntary health insurance in America.

It is, of course, no new thing for doctors and insurance people to be discussing a common problem. Each day the profession and the industry make thousands of contacts one way or another. The imprint of the medical profession on insurance is a heavy one. You aid us in the selection of risks, your work underlies our mortality and morbidity tables, and your assistance is essential to the disposition of many of our claims.

There are probably few places where the achievements of modern medicine are more clearly revealed than in the accumulated experience of insurance companies and in the mortality tables they employ. A review of the causes and frequency of death at the various ages made at twenty-five year intervals from seventy-five years ago to this day would at each quarter century date disclose notable advances. There come to mind readily the great reduction in infant mortality and in deaths during the childhood years. Discovery of specifics for such things as diabetes and pernicious anemia, the advances in chest surgery, the great extension of the field within which surgeons by reason of greater skill and better preoperative and postoperative care may operate, the lives saved by

[1] Presented before Conference of Presidents and Other Officers of State Medical Association, New York City, May 31, 1953.

[2] Reprinted by the courtesy of Mr. Carrol M. Shanks and Missouri Medicine (Pages 118–121, February 1954).

the sulfonamides and penicillin and the effective use of blood and blood plasma—these are but random samples and could be easily multiplied. In looking ahead we see the broad attack now being directed against the degenerative diseases which by reason of the earlier advances now loom so formidable. In connection with this matter of degenerative diseases, I am glad to be able to tell you that the life insurance industry for the last eight years has been actively promoting research having to do with the disease of the heart and arteries. More than five and a half million dollars have been contributed thus far. Two hundred and five separate programs have been supported and 241 research fellowships established.

This story of medical advances is an old story to you but almost necessarily rises afresh in the mind of an insurance man seriously considering the relations between medicine and insurance. Of course the practice of medicine and the effective distribution of medical care are both open to constant improvement, as just one good backward look will indicate. The road in each case stretches endlessly ahead, but the record already written is outstanding and entitles the physician to the gratitude of the nation. All over the world the quest for better health and the effort to prevent needless loss of life proceeds. A glimpse of this general scene only serves to emphasize how fortunate we are as a people in the kind and quality of health care already available to us.

It so happens these major medical advances have been made without the aid of prepaid care as we know it. This being so, it is easy to understand the occasional irritation of doctors caused by the use of the words "health insurance" in a fashion indicating that health insurance is the equivalent of health care itself. In other words, the inference is raised that so many dollars of health insurance will automatically buy so much improved medical care. Voluntary health insurance can ease the financial burdens of individuals and families, and its existence in many instances will result in the obtaining of better medical care. But the words are not interchangeable and primarily the improvement in care must come from the physician.

Now I should like to make with you a brief appraisal of voluntary health insurance as it stands today. What has been accomplished thus far? And is this movement deserving of our continued interest?

One major test is the number of people covered. The last complete figures I have dealing with medical, surgical and hospital expense insurance—the areas covered by insurance companies and Blue Cross and Blue Shield—are Health Insurance Council figures as of December 31, 1951. At that time it was estimated that 85 million people were covered for some form of hospitalization insurance; about 41 million by Blue Cross and Medical Society plans, and about 45 million by insurance companies. For surgical expense insurance covered about 65 million persons; about 24 million by Blue Cross and Medical Society plans, and about 41 million by insurance company plans. And for medical expense insurance about 26 million people; 14 million by Blue Cross and Medical Society plans and about 12 million by insurance companies. Duplication of coverage prevents the presentation of precise figures as to individuals covered, but the figures are about as indicated. Tentative projections carrying these figures to the end of 1952 indicate that the total coverage at the time probably amounted, in the case of hospitalization, to 90 million covered; in the case of surgical expense insurance to 72 million covered, and in the case of medical expense insurance to 32 million covered.

These figures standing alone constitute a noteworthy achievement. Actually, however, these figures deal only with the coverages in the areas in which the insurance companies and Blue Cross and Blue Shield all are active. There is outside this area and provided either by insurance companies alone or other private plans substantial protection which directly or indirectly supplies a considerable sum of money to meet health care expenses.

As long ago as December 31, 1951, there existed independent private plans such as industrial, community or consumer plans, or private group clinics or university health plans which provided hospital care for three and a half million people and provided surgical and medical care for 2,700,000 people. These figures today are undoubtedly larger.

The insurance companies provided loss of income benefits for varying periods for 31 million wage earners at the end of 1951 and approximately one third as many persons were covered through paid sick leave in private industry or in civilian government service, union administered plans and employee mutual benefit associations. These funds which meet the basic need of replacing a portion of the wage earner's income during sickness make possible the payment of doctor bills and hospital bills that otherwise would not be paid as promptly or, in many instances, at all.

There are, in addition, considerable sums paid under workmen's compensation policies, under total permanent disability benefit provisions in life insurance policies, under commercial accident policies issued to 4,800,000 persons, under group accidental death and dismemberment insurance issued to about nine and a half million people, and under commercial accident policies covering specified risks in the case of eight million people.

And then there are the very large sums approximating several billion dollars yearly paid out under life insurance policies. Little of this money goes direct from insurance companies into the hands of doctors as it is primarily utilized for general family living expenses and to achieve family aims. However, general family living expenses and general family aims these days include sizeable payments for hospital and medical care charges. Thus, life insurance in an unknown but very appreciable amount also enters the picture.

From this recital it can be seen that there is a very considerable amount of insurance protection which, although it is not always thought of as so doing, buttresses the voluntary health insurance program.

In considering the proportion of the population covered, it is also to be remembered that there are people, probably relatively small in number, who have no need of insurance protection. There are also a very considerable number of persons such as service men and other beneficiaries of governmental programs for whom adequate medical and hospital care is already available should they choose to accept it. So this field that we must cover is not as large as it is sometimes stated to be.

Thus rather an amazing start has been made in enlisting public participation in the voluntary health insurance program. This view is strengthened by consideration of the fact that hospitalization and surgical expense insurance in volume, as we now think of it, had its biggest growth commencing in the '40s and that medical expense insurance has had its greatest growth since the last World War. How many voluntary conceptions have progressed as rapidly?

The plans themselves are much more adequate. It is true that many plans do not satisfactorily meet present day medical and hospital costs. It is also true, however, that in connection with a large share of the business, upward revisions of the plan have already been effected and that this process continually goes on and that the level of benefits on the whole has steadily risen. Furthermore, the inflationary problem of recent years had made the job of catching up much more difficult. Moreover, it should be remembered that when some of these plans are written, the choice facing the insurance companies is not between writing an adequate or inadequate plan, but between writing a less than adequate plan or none at all. Under these circumstances it seems best that some start be made by developing some immediate protection. Many of these plans are later increased. Employers and individuals, moreover, on occasion have just so much to spend, and they insist on splitting the money thus available between medical, surgical and hospital protection on the one hand, and protection in the field of life insurance or loss of income or for some family purpose unrelated to insurance.

We have been dealing with the number of persons covered and the level of benefits. Voluntary health insurance by reason of the experience of the years has been the gainer in other fields.

We are possessed of a knowledge and resourcefulness we did not have when we started. When we started in, we had but few trained men. Today, though the supply of trained people is still inadequate, all the voluntary plans do have many people—actuaries, salesmen, clerical staffs, administrators, executives, claim people—substantially trained to meet the problems of the future.

Then we have preserved our freedom of action and our right to experiment. No monopoly has developed, and each major insuring agency has acted as a stimulus to the other agencies to provide more attractive plans and improved service for the public. Blue Cross and Blue Shield plans and insurance company plans are all probably better than they would have been had these agencies not acted as a spur to one another. Some of the other private plans will undoubtedly act as a stimulus to these three groups in turn.

In earlier days we were selling to a public largely unacquainted with the benefits voluntary health insurance could provide. Today we have a public which is much more aware of the value of our products and one which has had the benefit of a practical demonstration of that value by the payment of millions of claims.

We have now reached the point where I should like to look ahead with you and consider some of the problems of the future, and give thought as to how we can make voluntary health insurance still a more effective social instrument for good.

The problem has so many aspects—political, social, insurance, medical, etc.—that I could not begin to cover them all. I will therefore discuss with you a few general matters and some problems and matters of particular concern to insurance companies and doctors.

In the problem field we must continue to vigorously press and expand the sale of voluntary health insurance. My company, which has been issuing the group coverages for years, entered the individual and family hospital and surgical and income fields a little less than two years ago, largely because of the feeling that we must all do our part. Numbers of other insurance companies have entered the field as well.

Moreover, we must not only do more in the fields which have hitherto received principal attention at our hands but will now be obliged to direct a large share of our work to the more difficult areas. We shall have to deal more effectively with the problems of the older persons, the persons not presently reached by insurance companies through their group plans or by Blue Cross or Blue Shield. We shall have to deal with the retired person and with the problem of chronic illness and major medical expense. The problem of increasing diagnostic service will probably loom larger. Just how far the insurance principles can be utilized in all these fields remains to be seen. Encouraging starts have, however, been made in a number of these areas as in the case of older persons and retired persons, and the ingenuity and experience we have gained will do much to aid in the solution of these problems.

Substandard risks are satisfactorily cared for by group insurance. Here there is no need for evidence of insurability, but a substandard case in individual accident and health insurance is more difficult. Here again we must seek to move forward.

One of the basic needs, and probably the one on which the success of voluntary health insurance depends more than any other, is that there be effective cooperation in the public interest between the insuring agencies and the medical profession and the hospitals who furnish the necessary services. I do not believe the importance of this factor can be overestimated. There are many reasons why this is so. We are, for instance, moving into an era of prepaid care. This will obviously produce a greater utilization of facilities than is the case in a population without such insurance. Some of this increased utilization will be good, namely, that which results in necessary care being provided where it would not have been provided without the existence of prepaid coverage. On the other hand, possession of such coverage will undoubtedly produce in certain cases an over-utilization of its facilities merely because the coverage is present. Those who write the insurance and those who provide the service will both have an interest in facilitating the increased utilization in the one case and restraining it in the other. Such restraint as occurs will not have as its object primarily the saving of money but the preservation of the basic plans for those who need them. These could easily be destroyed and priced out of the market.

We need deeper recognition of our joint obligation to the public. In other words, it is not enough that we just properly handle our own end of each situation. A man in a hospital, for instance, under doctor's orders is not three different per-

sons with three separate problems, but one man with one three-sided problem. Soliciting the support of the public and proclaiming the superiority of voluntary insurance, as we do, we can do no less than cooperate together to see that our joint handling of his case shall be made as easy and as convenient and as understanding as possible. The patient is a whole man, and he is justified in demanding that he be treated as such. And we will be wise to heed that demand.

One of the prime problems confronting us is, of course, that we furnish the full and more adequate benefits demanded by the public at reasonable cost. The physician must and should be adequately compensated for his work, and our plans must be kept financially sound—not only for ourselves but for the participants in the plan. But we must still see that the job is done at a cost which the patient may reasonably be expected to pay. Should we fail to meet the reasonable expectation of the public in this regard, the solution will not be abandonment of public demand for adequate coverage but a turn to some governmental operation.

The need for what I have been talking about is readily seen in the problems involved in furnishing protection against major or catastrophic medical and hospital expense. Today companies are actually pushing the sale of coverages providing for losses up to two or five or ten thousand dollars. This is an area in which there have been repeated cries for assistance. Now we are trying to do something about it, but there can be no hope of successfully doing so unless costs and charges are kept at their true level. One part of the problem we try to solve by making the insured a co-insurer which makes him a part payer of the bill. The other principal safeguard must be the sympathetic understanding of the insurance principles involved on the part of those who furnish the service and their personal integrity in giving that understanding practical effect.

Should insurance fees merely be utilized to increase the cost of insurance, the whole purpose of taking out the insurance is defeated and sooner or later the scheme must fall to the ground. The doctors of course have been confronted with the same inflationary problem as all the rest of us, and, as I have said, any system must see that they are properly compensated for their work. But, as I have also said, if insurance which was taken out with the specific purpose of meeting all or a certain portion of a medical bill is converted into the basis for increasing that bill, the desire to plan for and anticipate medical costs is greatly lessened, if not destroyed.

A great deal of educational work has been done. Insurance people better understand medical procedures and practices, and doctors better comprehend some of the basic insurance principles. But a much more thorough job needs to be done in this respect, and the matter must be gotten home to more insurance people and to many more doctors. A voluntary insurance system moves only through the direct efforts of the people who believe in it. There is no outside directing force, nor any feat of legerdemain that will do this job for us. If we are to move in this field, it means that literally thousands of insurance people and the doctors at the local level will have to have a better understanding of the principles involved in the successful operation of voluntary insurance and will have to see the need for proper support of things that are in the public's interest.

While I shall not dwell on it, just the mechanical work necessarily involved in the payment of claims makes it desirable that we establish systems that are easy and as effective as possible.

Generally speaking, I have found medical men keenly interested in the spread of voluntary insurance and anxious to encourage all able and honest agencies working in the field. I must confess, however, that I am somewhat surprised to occasionally find doctors and societies who do not see the need for according substantial equality of treatment in the matter of charges to policyholders of insurance companies and participants under Blue Cross and Blue Shield plans.

I have no doubt of the sincerity of the views of most such men and of their understandable attachment to a program which has been so very beneficial and which they may have originated or of which in any event they play an active part. Nor is any criticism intended of the great service performed by them.

However, I should like to advance for your consideration the suggestion that the view thus taken fails to take full account of the obligation to the purchasers of voluntary insurance or of the true interests of the medical profession itself.

The medical profession has sought and sought successfully thus far to maintain its independence and to maintain a system preserving the right of the patient to a free choice of a physician and to avoid having its fees set for it by government. The stronger and broader the existing voluntary insurance system the better position the medical profession will be in to maintain these principles.

Is the freedom thus accorded to the medical profession to be utilized to deny to others a free unregimented choice as to how they should choose to meet their medical costs?

The profession pled for public support in its fight against compulsory health insurance. It sought the support of its patients and the general public. It sought to encourage the spread of voluntary insurance in every possible sound manner. Does it now wish, after having obtained such support, to deny equality of treatment in the matters of fees to anyone who obtains his protection other than through certain specified agencies however beneficial they may be? In other words, is voluntary insurance to be voluntary or only theoretically so?

It has been the pride of the profession through the years that all people in the same financial circumstances and in the same degree of physical and mental distress shall receive the same treatment—medical treatment and financial treatment. Is that a standard from which it is wise to wander?

Just a few additional brief words. We now have an administration in Washington inclined to look more favorably on private attempts to solve the problem of medical care costs. We will be wise, all of us, to work on this problem now. We will be wise, furthermore, to recognize that this means you and it means me. If we have too many other things to do, or if the organization we represent can spare no time for this, then we can hardly be heard to complain when other means

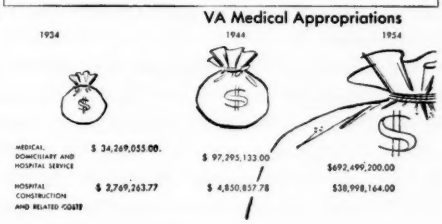
are sought to accomplish these aims. All the good will in the world will not have the value of a sound bit of constructive work.

We have come a long way with voluntary health insurance. Many problems and much work lies ahead, but I am sure that we can all take heart from what has been accomplished thus far. Above all, let us keep our thinking broad and our sights high. Let us remember that we all exist—doctors, hospitals and insurance agencies—simply as a mechanism through which the public can best achieve its purposes, namely, better health care and a better and more satisfactory method of financing the cost of that care. If we keep our minds on these essential purposes, cooperating where we properly may to achieve them better, we will not be needlessly diverted or divided by unimportant and lesser matters, and we shall the sooner realize our goal.

The Prudential Insurance Company of America
Newark 1, New Jersey

In Viewing the VA Medical Program . . .

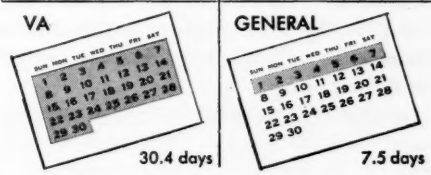
increasing tax burden



In twenty years, the cost of the VA medical program to U. S. taxpayers has increased 1,875%. Yet only 15% of the patients treated in VA hospitals are veterans with disabilities incurred while in uniform. The VA medical program is now second in size and expense only to the nation-wide system of socialized medicine in Great Britain.

In Viewing the VA Medical Program . . .

comparison of length of stay in VA and general hospitals
GM&S



General medical and surgical patients in VA hospitals are confined four times longer than in non-federal hospitals. VA hospitals admit patients for examination, diagnosis, and treatment, much of which is normally undertaken outside civilian hospitals. Also, VA patients often remain hospitalized throughout the entire medical treatment period, whereas non-VA patients are usually treated at home during their convalescence. This is a major factor in the tremendous cost of the VA medical program.

Component Medical Societies

BALTIMORE CITY MEDICAL SOCIETY

CONRAD ACTON, M.D.

Journal Representative

It is well into the month of May as this material for the July number is assembling. The various problems having to do with the end of a school year and beginning summer take everyone's attention. The Executive Board and the Executive Committee continue to meet regularly, and handle the problems brought before them with care and dispatch.

The American Medical Association sent a communication requesting appointment of a committee to study the problem of alcohol. This was considered and referred to State level for further action. It had nothing to do with the recent symposium on alcoholism held by the Committee on Medical-Legal Problems with C. Holmes Boyd, M.D. as moderator earlier in May.

A proposed "preventive program in chronic diseases" (BOASI Program) for employees of the Bureau of Old-Age and Survivors Insurance, Department of Health, Education, and Welfare was presented by Dr. William T. Doran, Jr., Medical Director of the Department. This program has been "approved" only by the Medical Board in Birmingham, Alabama where the pilot study was made. He described how the BOASI 'aid station' will do screening, similar to that done by the Commission on Chronic Illness. The Government allocates a fixed $8.00 per employee per year, which permits screening and referral to practicing physicians and clinics. Discussion was vigorous. President Gundry was directed to canvass the Medical Board and in accordance with information obtained, act on his own best judgment.*

State licensure for Laboratory Technicians has been discussed. Laboratory-interested physicians were heard at one sitting, and also those who favor such a law. The Society feels that it has merit in supervising and control of Laboratories, but was opposed to the proposal which was directed toward licensing of Laboratory Technicians.

* As the JOURNAL goes to press, I understand this was approved.

BALTIMORE COUNTY MEDICAL ASSOCIATION

SAMUEL P. SCALIA, M.D.

Journal Representative

The Dundalk YMCA was the scene of the May luncheon meeting of the Baltimore County Medical Association.

This meeting was held May 19, 1954. The following physicians were voted membership in the society: Dr. Robert E. Thomas, active member; Dr. Kevin Quinn, active member; Dr. Louis J. Kolodner, associate member.

It was announced by the Journal Representative that the November issue of the State JOURNAL is to be dedicated to Baltimore County. Any county physician having any material that he believes worthy of publication should contact Dr. Scalia.

Dr. O'Donnell presented to the members a resolution *opposing* the licensing of medical or laboratory technicians. This licensing procedure would make it illegal for a nurse or a secretary to do any routine laboratory work after a physician trained her. The resolution was unanimously adopted.

Dr. O'Donnell also began an active discussion on the state Health Department Laboratories. Too many physicians use the laboratories for all sorts of laboratory procedures and yet charge the patient full fee. The consensus of opinion seemed to be that the State laboratories should be used only for communicable diseases or for indigent and Medical Care patients. It was decided that Mr. Wells, our Legal Counsel, should draw up a resolution for the next meeting.

Dr. Melvin Davis next presented a resolution regarding Medical Care in the State of Maryland. The Medical and Chirurgical Faculty is to review the pro-rata and the pro-capita plans as they now exist and decide once and for all which plan to

adopt for the entire State. A motion was made and carried, concerning this very important affair.

The scientific portion of the meeting was handled by Dr. Roy Scholz. His subject was "The Treatment of Diseases of the Eye in General Practice." His talk was illustrated by colored slides and a moving picture. Dr. Scholz gave a very interesting and instructive presentation.

CARROLL COUNTY MEDICAL SOCIETY

WILLIAM L. STEWART, M.D.

Journal Representative

A regular meeting of the Carroll County Medical Society was held at the Hoffman Inn, Westminster, on May 19, 1954 with 23 members present.

A motion was made and passed that annual dues for the Carroll County Medical Society be increased from their present rate of $7.00 to $15.00 to meet current operating expenses.

The matter of state licensure of medical technologists was brought up and after a round table discussion it was decided unanimously that the Society should go on record as disapproving this proposed law.

Our guest speaker was Dr. C. W. Stewart of Baltimore. He gave us a very interesting talk on the deficiency anemias.

All members of the Society wish to express their distress over Dr. Woodward's recent illness and we all join in best wishes for a speedy recovery.

HARFORD COUNTY MEDICAL SOCIETY

FREDERICK J. HATEM, M.D.

Journal Representative

Minutes of meeting, April 29, 1954.

Members present: Brendle, Finney, Hatem, Hodous, Marek, Norment, Rodman, Stewart. Guest: Fisher.

The meeting was held at the Colonial Hotel, in conjunction with cocktails and dinner. In the absence of the president and vice-president, the secretary presided. Dr. William S. Love spoke on the purposes and activities of the Heart Association and asked the Society to reconsider endorsing a local chapter of the Heart Association.

Old Business: 1. Dr. Edward C. Loo of Havre de Grace elected to regular membership.

New Business: 1. Coverage of farmers' employees under the Workmen's Compensation Laws. It was decided that a letter be written to the Committee on Industrial Health of the state society asking that a study be made to determine if there is a possibility of changing to Workmen's Compensation law so that farmers' employees be included.

2. Mass tetanus immunization of farmers. It was decided to write the County Health Department inquiring into the possibilities.

3. Heart Association. After much discussion and misunderstanding, it was voted that the Society endorse a local chapter of the Heart Association.

KENT COUNTY MEDICAL SOCIETY

O. S. GULBRANDSEN, M.D.

Journal Representative

The Quarterly meeting of the Upper Eastern Shore Medical Society was held at the Chester River Yacht and Country Club, Chestertown, on April 22, 1954. Representatives of Caroline, Kent, Queen Anne's and Talbot County Medical Societies attended.

Dr. George H. Yeager, former Secretary of the State Society and Professor of Medicine at the University of Maryland, spoke on "Peripheral Vascular Disease," and a movie, "Intra-Articular Injection of Hydrocortisone," was shown.

Library

"Books shall be thy companions; bookcases and shelves, thy pleasure-nooks and gardens." *ibn Tibbon*

TUBERCULOSIS

LOUIS KRAUSE, M.D.*

This disease certainly must have existed from the earliest days of human history, even perhaps in the animals also. While it is difficult to trace the disease etiologically to the great past, certainly our anatomical remains and the descriptive literature throughout the ages indicate that it was probably quite widespread. The osteological findings in the mummies of Egypt certainly suggest its extensive occurrence at that time.

Among the skeletal remains studied by Sir Marc Armand Ruffer, there were found skeletons with a very characteristic hunchback, collapsed vertebra, huge abscessed cavities with remains of sinus tract scars in the psoas muscle. Here we have undoubted evidence of ancient Pott's Disease, on a tuberculosis basis in all likelihood. Since the turn of our century, for many reasons, a decline in the incidence of disease occurred, but of course, nothing so dramatic as we have in our own present era with the chemotherapy control. For the exciting story of this and the depressing story of the "white plague" in days gone by, see the following list of books, plus recent periodical articles also in the library:

TUBERCULOSIS

(*A list of books selected from several hundred on the subject in the Faculty Library*)

Alexander, J. The collapse therapy of pulmonary tuberculosis. Springfield, Thomas, 1937.

Baillie, M. The morbid anatomy of some of the most important parts of the human body. 1st. Am. ed. Albany, Barber and Southwick, 1795.

Bayle, G. L. Recherches sur la phthisie pulmonaire. Paris, Gabon, 1810.

Bodington, G. An essay on the treatment and cure of pulmonary consumption. Reprinted. London, Simpkin, Marshall, 1906.

Boneti, T. Sepulchretum. Genevae, Sumptibus Cramer, 1700.

Both, C. Consumption and its treatment in all its forms. Boston, A. Moore, 1873.

Brown, L. The story of clinical pulmonary tuberculosis. Baltimore, Williams & Wilkins, 1941.

Buhl, L. Inflammation of the lungs; tuberculosis and consumption. From the 2d. German ed. N. Y., Putnam, 1874.

Clark, J. A treatise on pulmonary consumption. Philadelphia, Carey, Lea and Blanchard, 1835.

Crawfurd, R. H. P. The king's evil. Oxford, Clarendon, 1911.

Davies, H. M. Surgery of the lung and pleura. London, N. Y., H. Milford, Oxford Univ. Press, 1930.

Dumarest, F. La pratique du pneumothorax thérapeutique. 4th. ed., Paris Masson & Cie, 1936.

Empis-Simonis, A. G. G. J. De la granulie ou maladie granuleuse connue sous les noms de fièvre cérébrale, de méningite granuleuse d'hydrocéphale aiguë de phthisie galopante, de tuberculisation aiguë, etc. Paris, P. Asselin, 1865.

Evans, G. A. Handbook of historical and geographical phthisiology with special reference to the distribution of consumption in the United States. N. Y., Appleton, 1888.

Flick, L. F. Consumption a curable and preventable disease. Philadelphia, McKay, 1903.

Grancher, J. Maladies de l'appareil respiratoire tuberculose et auscultation. Paris, Doin, 1890.

Harvey, G. Morbis anglicus: or the anatomy of consumptions. 2d. ed. London, Printed for N. Brook, 1672.

Hilton, J. On rest and pain. 2d. ed. N. Y., W. Wood, 1879.

Jacobs, P. P. The control of tuberculosis in the United States. N. Y., National tuberculosis association, 1932.

Kayne, G. G., Pagel, W., and O'Shaughnessy, L. Pulmonary tuberculosis, pathology, diagnosis,

* Chairman, Library Committee.

management and prevention. London, Oxford, 1939.

Kiefer, N. C. Present concepts of rehabilitation in tuberculosis, a review of the literature, 1938–1947. N. Y., National tuberculosis association, 1948.

Kinghorn, H. M. The cure of pulmonary tuberculosis by rest and exercise. Boston, R. G. Badger, 1924.

Koch, R. The aetiology of tuberculosis, a translation from the German of the original paper announcing the discovery of the tubercle bacillus. N. Y., National tuberculosis association, 1932.

Laennec, R. T. H. De l'auscultation médiate. Paris, Brosson et Chaude, 1819.

Louis, P. C. A. Researches on phthisis, anatomical, pathological and therapeutical. 2d. ed. London, Printed for the Syndenham society, 1844.

MacCormac, H. Consumption, its prevention and possible cure. 2d. ed. London, Longmans, Green, 1865.

Merck and Company, Inc. Streptomycin as an adjunct in the treatment of tuberculosis, annotated bibliography, 1948. Rahway, N. J., 1948.

Morton, R. Phthisiologia seu exercitationes de phthisi tribus libris comprehensae. London, S. Smith, 1689.

Morton, S. G. Illustrations of pulmonary consumption. Philadelphia, Key & Biddle, 1834.

Myers, J. A. Tuberculosis among children and adults. 3rd. ed. Springfield, Thomas, 1952.

Piéry, A. M. La tuberculose pulmonaire. Paris, Doin, 1910.

Pinner, M. Pulmonary tuberculosis in the adult. Springfield, Thomas, 1945.

Portal, A. Observations sur la nature et le traitement de la phthisie pulmonaire. Paris, Collin, 1809.

Predöhl, A. Die Geschichte der Tuberkulose. Hamburg, Vass, 1888.

Reid, J. Treatise of the origin, progress, prevention, and treatment of consumption. London, Printed for R. Phillips, 1806.

Reid, T. An essay on the nature and cure of the phthisis pulmonalis. London, 1785.

Rich, A. R. The pathogenesis of tuberculosis. 2d. ed. Springfield, Thomas, 1951.

Riviere, C., and Morland, E. Tuberculin treatment. 2d. ed. London, H. Frowde, 1913.

Rollier, A. Heliotherapy. Eng. ed. London, H. Frowde, 1923.

Sattler, E. E. A history of tuberculosis from the time of Sylvius to the present day. Cincinnati, Clarke, 1883.

Sauerbruch, E. F. Thoracic surgery. Rev. and abr. ed. of Die Chirurgie der Brustorgane. London, Arnold, 1937.

Sylvius, F. de le B. Opera medica. Amstelodami, Elsevirium, 1679.

Trousseau, A., and Belloc, H. A practical treatise on laryngeal phthisis, chronic laryngitis, and diseases of the voice. Philadelphia, A. Waldie, 1839.

Trudeau, E. L. An autobiography. Philadelphia, Lea & Febiger, 1916.

U. S. Veterans Administration. Conferences on the Chemotherapy of tuberculosis, 1951, 1952.

Villemin, J.-A. Etudes sur la tuberculose. Paris, Baillière, 1868.

Waldenburg, L. Die Tuberculose, die Lungenschwindsucht und Scrofulose. Berlin, Hirschwald, 1869.

Webb, G. B. Tuberculosis. N. Y., Hoeber, 1936. (Clio Medica)

Wells, H. G., and Long, E. R. The chemistry of tuberculosis. Baltimore, Williams & Wilkins, 1932.

Winslow, C. E. A. The life of Hermann M. Biggs. Philadelphia, Lea & Febiger, 1929.

LIBRARY CHATTER

We hope all Faculty members are sure that they are always welcome in the Library, but we'd like to issue a special invitation to visit us during the summer months. No parking worries, just park in the back of the building, come in and look over the books at your leisure. Our new open shelves hold all those added in the past ten years and they are easily accessible. No more sending back to the stacks for each title! The office and journal room are air-conditioned and, as some members found out last summer, are very pleasant and comfortable places in which to study or just pass time catching up on your reading. The latest issues of over three hundred medical journals are always available.

Of course, if you insist on reading at home in shorts with something long and cool at your elbow, you

may borrow what you like to take along. The following suggestions are offered as good hot-weather reading fare:

Browne, *The scalpel of Scotland Yard*

"Presenting the life story of a famous pathologist, here is a book filled with fascinating and absorbing details of some of the greatest of modern murder trials. Second to none in the field of forensic medicine, Sir Bernard Spilsbury was called 'the incomparable witness.' His name became legendary in the annals of Scotland Yard, his practices were accepted by police the world over."

Bett, *The infirmities of genius*

"Does genius depend upon some external stimulus, such as alcohol or drugs, or some abnormality of character, to produce its most brilliant results? Dr. Bett discusses this question in a penetrating survey of the lives of fifteen famous literary figures."

Hirst, *The conquest of plague*

"This book begins with a brief account of traditional beliefs about the cause of pestilence, then traces the main sources of human infection and ends by showing how recent advances in knowledge have led to the conquest of plague, the most ancient and most deadly of epidemic diseases."

Bond, *Thomas W. Salmon, psychiatrist*

"Here, related with warmth and intimate understanding, is the life story of a renowned and beloved psychiatrist, the leading American pioneer in the field of mental hygiene. Throughout this record of his outward achievements glows the personality of a remarkable man."

Pickard and Buley, *The Midwest pioneer, his ills, cures, & doctors*

Dedicated "To the pioneer doctor who boldly faced the wilderness; and to the pioneer who bravely faced the doctor," the authors present a non-technical account of medicine in the early Middle West which adds an important chapter to the always-fascinating history of the region and period.

Oberndorf, ed., *The psychiatric novels of Oliver Wendell Holmes*

"Dr. Oberndorf has drawn upon his rich clinical experience to supplement and interpret Holmes' descriptions of psychopathic conditions. The book is a novel idea in psychiatric presentation and will appeal to everyone who is interested in the social aspect of mental disease."

Leonardo, *History of medical thought, an essay*

"The author has attempted to show the influence of philosophy on medicine throughout the ages, and its responsibility for prevailing medical and surgical concepts."

Hume, *Doctors East, doctors West*

"This book is the personal record of how one American doctor discovered that medicine was a builder of bridges between nations and cultures."

Powell, *Bring out your dead*

The outbreak of yellow fever in Philadelphia in 1793 was one of the great tragic episodes in American history. The author brings out the human values of those hundred days of horror, "with all the cowardice and courage, the cynicism and faith, the knowledge and the vanity that people have."

M. E. B.

INFECTIOUS HEPATITIS INCIDENCE DOUBLE 1953

The AMA Washington Letter, 66

Office of Vital Statistics data show that the number of reported cases of infectious hepatitis in the first quarter of this year was more than double the total for the comparative period last year. The respective totals are 17,120 and 8,216. For the same months in 1952 the total was 6,289. In announcing the figures, the office states: "Some of the increase is undoubtedly due to better reporting, but epidemiological information on outbreaks indicates that there may be a real increase in the incidence. Many outbreaks have occurred among school populations, and with the closing of schools this summer, the incidence may be expected to decrease as in the previous two years, reaching a low for the year sometime in July or August. As in 1952 and 1953, the incidence this year may begin to decline early, and by June may be well below the peak."

Health Departments

MARYLAND STATE DEPARTMENT OF HEALTH

Gamma Globulin Distribution, 1954

May 10, 1954

Dr. George H. Yeager, Editor
Maryland State Medical Journal
1211 Cathedral Street
Baltimore 1, Maryland

Dear Dr. Yeager:

I am enclosing material describing gamma globulin distribution in 1954. This is of current interest to many physicians and the State Board of Health expressed the hope that it would be printed in an early issue of the Journal.

At its meeting on April 14, 1954, discussion by the Board centered on the dilemma of distributing gamma globulin for use in connection with poliomyelitis in the face of insufficient evidence of its effectiveness. Indeed, the evidence accumulated from the evaluation studies carried out in 1953 casts considerable doubt on the effectiveness of gamma globulin.

The summary of the report of the National Advisory Committee for Evaluation of gamma globulin in prophylaxis of paralytic poliomyelitis—1953, as printed in the Journal of The American Medical Association, March 27, 1954, p. 1086, comments: "Its value in community prophylaxis as practiced during 1953 has not been demonstrated. . . ." and again "No valid basis was found for drawing confident conclusions as to its preventive effect. . . .The administration of gamma globulin to familial associates of patients with poliomyelitis has had no significant influence on (1) the severity of paralysis developing in subsequent cases; (2) the proportion of non-paralytic poliomyelitis occurring in subsequent cases in which G. G. was given before the onset; and (3) the classic pattern of familial aggregation of cases in the country at large."

With the above information in mind, the Board considered several possible methods of distribution of gamma globulin for use in connection with poliomyelitis. The recommendations of this Department are contained in the attached circular Gamma Globulin Letter No. 1 dated April 14, 1954.

I will appreciate it if this material can be incorporated in the next issue of the Journal.

Very sincerely yours,

R. H. Riley

Director

MARYLAND STATE DEPARTMENT OF HEALTH

2411 N. Charles St.

Baltimore 18, Maryland

April 14, 1954

GAMMA GLOBULIN DISTRIBUTION—1954

Gamma Globulin Letter No. 1

To: County Health Officers

Subject: Use and Distribution of Gamma Globulin

MEASLES: Gamma globulin (immune globulin human) has been definitely proved to be of great value in the control of measles.

Indications for use:

A. Complete prevention by passive immunization with immune globulin human *should* be attempted as follows:
   1. Contacts less than three years of age
   2. Contacts among children ill with other diseases (particularly tuberculosis and rheumatic fever).
   3. Contacts among children in hospitals or institutions

B. Partial prevention *may* be attempted at the discretion of the family physician by inducing an attack of modified measles as follows:
   1. Contacts among all other children between three years and 16 years of age.

Dosage:

For prevention: 0.1 cc per pound of body weight (intramuscularly) as soon as possible after exposure. Dose increases if more than six days after exposure.

For modification: 0.02 cc per pound of body weight (intramuscularly).

INFECTIOUS HEPATITIS: Gamma globulin (immune globulin human) has been definitely proved to be of great value in the control of infectious hepatitis. Where GG has been used to control an outbreak of infectious hepatitis, the rate for the inoculated has been reduced to

10% as compared with those uninoculated, and even though used in younger age groups only, it has reduced the rate for all ages and for the entire community. The use of GG is therefore approved to control hepatitis outbreaks in groups such as schools and children's institutions as well as among household contacts. Indications for the former will be determined by the local health officer in consultation with the State Health Department.

Indications for use:

1. Household contacts of clinically diagnosed cases.
2. Schools, children's homes, or other institutions where the size and nature of the outbreak is such that the local health officer in consultation with the State Health Department approves its use.

Dosage: 0.02 cc per pound of body weight (intramuscularly) within first week after exposure.

POLIOMYELITIS: Action taken by the State Board of Health—April 14, 1954—The Maryland State Board of Health at its meeting on April 14, 1954, studied the "Summary Report of the National Advisory Committee for the Evaluation of Gamma Globulin in the Prophylaxis of Poliomyelitis in 1953" as published in the Journal of the American Medical Association of March 27, 1954. It was the considered opinion of the Board that no present evidence existed from the 1953 tests, as set forth in the "Summary Report", that Gamma Globulin is of value in the prevention or modification of poliomyelitis.

Nevertheless, since there is at present some division of opinion on this matter, and since Gamma Globulin will be available in 1954, the Maryland State Department of Health will supply Gamma Globulin to practicing physicians on their request after consultation with the local health officer, if, in the judgment of the physician, he wishes to use it.

Indications for use: Lack of evidence prevents establishment of valid criteria for use.

Dosage: Unknown. A "somewhat higher amount" than the 0.14 cc per pound used in 1953 has been suggested. Gamma Globulin Letter No. 28—April 7, 1954, states "In 1953 the average dose was 7 cc; it is recommended that this be increased to 10 cc in 1954."

GERMAN MEASLES: (Rubella)

Indications for use: If exposure occurs, immunization with immune globulin human should be attempted in pregnant women who have not had German measles and who are in the first five months of pregnancy.

Dosage: 0.1 cc per pound of body weight (intramuscularly) should be given as soon as possible after exposure.

HYPOGAMMAGLOBULINEMIA: This is a rare clinical entity recently described. It is characterized by a deficient ability to form antibodies. In this condition the regular repeated administration of gamma globulin is required to maintain the resistance of the patient to infection and may be life saving. Inquiry regarding its use for this condition should be made directly to the State Health Department.

DISTRIBUTION

Working supplies of gamma globulin will be placed in each local health department. ***Only licensed physicians may request gamma globulin.*** In order to obtain G.G. for prophylaxis of any of the above conditions, physicians are required to furnish to the local health department information on the name, date of onset, and diagnosis of the patient as well as the names and ages of contacts to be inoculated, and the amount of gamma globulin to be used.

An exception to this would be made in the case of schools, camps, or other group situations when the local health department arranges for the inoculations to be given. In this instance the local health department would prepare a *summary* of the number and ages of children inoculated, the disease involved, and the total amount of gamma globulin used. Physician's request forms—(CD-3) will be supplied for this purpose. The same form will also be used by the local health department to prepare a summary in the case of group inoculations. ***In order to obtain replacement of the gamma globulin*** issued, the local health department must submit a copy of the request form (CD-3) together with a duplicate requisition.

PACKAGING AND LABELING

A. *Packaging*

Gamma globulin solution for prophylaxis of measles, infectious hepatitis, and for other special purposes will be provided primarily in 2 cc vials. However, there will be some available also in 10 cc vials. It will therefore be necessary to keep these supplies separate from that reserved for poliomyelitis which will be provided only in 10 cc vials.

B. *Labeling*

Most of the material available for 1954 will be labeled "Poliomyelitis Immune Globulin (Human)".

Occasional lots of material will be labeled "Immune Serum Globulin (Human)".

Such material is intended in all instances for uses *other* than for poliomyelitis.

The material labeled "Poliomyelitis Immune Globulin Human" is intended for prophylaxis of measles, infectious hepatitis and for other special purposes as well as for poliomyelitis. The State Health Department regrets the confusion in labeling. It will be necessary for each local health department to keep separate the material issued for use in measles, infectious hepatitis and other special purposes from that issued for poliomyelitis.

BALTIMORE CITY HEALTH DEPARTMENT

Tuberculosis Mortality Declines Sharply No Change Seen In Morbidity

A review of the mortality record of Baltimore residents during the first four months of 1954

indicates that the striking decline of tuberculosis deaths noted in 1953 is continuing into the current year. There were 61 tuberculosis deaths from January 1 through April 30, 1954, compared to 108 during the same period of 1953, a drop of 43 per cent. The decline in tuberculosis in the white population was approximately 50 per cent, and it was 33 per cent in the colored population. Should this trend continue, and there is little reason to believe otherwise, annual tuberculosis mortality rates for 1954 will drop to 10 per 100,000 population for the white segment and 35 per 100,000 for the Negro population.

Barring some unforeseen conditions affecting the nutritional status of the population, it is not unreasonable to forecast that tuberculosis within the coming decade will take its place with many of the other communicable diseases as a relatively insignificant cause of mortality.

However, much remains to be done before the disease can be considered effectively controlled. In spite of the tremendous advance in the prevention of deaths from tuberculosis, the annual occurrence of new cases involving serious illness and disability shows no clear evidence of decline.

Consistently within the last five years, from 1,350 to 1,500 cases of tuberculosis have been reported each year. This would seem to indicate that there has been no recognizable drop in the number of persons in this city who are attacked by this disease, but rather that more effective methods of treatment have reduced the likelihood of death from tuberculosis.

Since the incidence of tuberculosis continues at a relatively high rate, no diminution is expected at present in the need for a tuberculosis hospital service of sufficient capacity to provide beds promptly for the many cases requiring inpatient care. The rapidity with which the progress of disease can now be arrested will no doubt result in shortened lengths of stay. This will increase the need for follow-up care and supervision in the home, a service rendered largely by the public health nurses cooperating with the Bureau of Tuberculosis. Additional investment of time by the public health nursing service in tuberculosis care was necessary in 1953 as a result of an extensive home treatment program in which streptomycin in combination with other drugs was administered under the direction of the Bureau of Tuberculosis.

Reduction in the reservoir of disease in the community is the logical objective for further control effort. Rendering the known cases of tuberculosis bacteriologically negative as rapidly as possible, and finding the unknown case before it can serve as a focus of infection for other contacts, form the rational steps which should guide the practitioner and the health department in a joint effort to reduce the incidence of tuberculosis to a minimum. Elimination of tuberculosis as a public health problem may now be within the realm of possibility. However, there will long remain the task of the rehabilitation of former tuberculous patients.

Huntington Williams, M.D.

Commissioner of Health

MD'S NEVER STOP STUDYING

A. M. A. News Notes, Vol. 3, No. 2

In these busy times the average practicing physician still manages to devote the equivalent of 83.3 eight-hour days a year to keeping abreast of current developments in the field of medicine. This striking figure is one of many brought out in a preliminary report by the AMA'S Council on Medical Education and Hospitals on its recent survey of postgraduate medical education. Survey findings are based on data compiled on personal visits to more than 220 institutions engaged in postgraduate medical education as well as 5,000 questionnaires received from a random sample of 17,000 practicing physicians throughout the country.

STATE OF MARYLAND DEPARTMENT OF HEALTH

MONTHLY COMMUNICABLE DISEASE REPORT

Case Reports Received during 4-week Period, May 28–June 24, 1954

	CHICKENPOX	DIPHTHERIA	GERMAN MEASLES	HEPATITIS, INFECT.	MEASLES	MENINGITIS, MENINGOCOCCUS	MUMPS	POLIOMYELITIS, PARALYTIC	POLIOMYELITIS, NON-PARALYTIC	ROCKY MT. SPOTTED FEVER	STREP. SORE THROAT INCL. SCARLET FEVER	TYPHOID FEVER	UNDULANT FEVER	WHOOPING COUGH	TUBERCULOSIS, RESPIRATORY	SYPHILIS, PRIMARY AND SECONDARY	GONORRHEA	OTHER DISEASES	DEATHS: Influenza and pneumonia
Total, 4 weeks																			
Local areas																			
Baltimore County	35	1	7	1	159	—	81	—	—	—	19	1	—	5	5	—	6	e-1	2
Anne Arundel	6	—	—	7	55	—	9	—	—	—	1	—	—	—	11	—	3	ty-1	2
Howard	1	—	2	3	6	—	2	—	—	—	1	—	—	1	1	—	1	p-1	—
Harford	4	—	4	7	87	—	6	—	—	2	4	—	—	—	—	—	—	—	1
Carroll	—	—	—	—	1	—	—	—	—	—	2	—	—	1	3	—	—	—	—
Frederick	12	—	—	5	3	—	—	—	—	—	3	—	—	—	4	—	3	—	—
Washington	—	—	—	2	2	—	10	—	—	—	—	—	—	2	10	—	3	—	—
Allegany	2	—	—	2	7	—	7	—	—	—	2	—	—	—	4	—	—	—	—
Garrett	—	—	—	4	2	—	1	—	—	—	—	—	—	—	—	—	1	—	—
Montgomery	11	—	2	1	126	—	18	—	1	—	1	—	—	4	7	—	1	—	2
Prince George's	9	—	4	—	122	—	11	—	—	1	10	—	—	2	17	—	—	e-2	1
Calvert	1	—	—	—	2	—	—	—	—	—	—	—	—	—	1	—	—	p-1	—
Charles	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Saint Mary's	1	1	1	3	8	—	1	—	—	1	—	1	—	—	1	—	—	—	1
Cecil	2	1	—	80	15	—	3	—	—	—	—	—	—	—	1	—	—	—	—
Kent	—	—	—	—	32	—	25	—	—	—	—	—	—	—	—	—	—	—	—
Queen Anne's	—	—	—	1	46	—	1	—	—	—	—	—	—	—	2	—	—	—	—
Caroline	—	—	—	—	3	—	—	—	—	—	—	—	—	6	1	—	1	—	2
Talbot	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	3	—	1
Dorchester	—	—	—	—	7	—	—	—	—	—	—	—	—	—	4	—	7	—	2
Wicomico	8	—	2	—	3	—	16	—	—	—	6	—	—	—	4	1	20	—	1
Worcester	—	—	1	1	7	—	—	—	—	—	—	—	—	1	1	3	—	—	—
Somerset	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—
Total Counties	92	3	23	117	693	0	191	0	1	4	49	1	0	23	77	4	53		15
Baltimore City	91	0	14	4	193	0	105	2	0	2	40	0	0	24	112	4	391	e-2	16
State																			
May 28–June 24, '54	183	3	37	121	886	0	296	2	1	6	89	2	0	47	189	8	444		31
Same period 1953	122	0	81	75	342	10	374	4	2	0	149	2	1	23	224	13	632		23
5-year median	292	1	113	—	350	4	210	5		7	63	3	3	37	234	25	566		26
Cumulative totals																			
State																			
Year 1954 to date	2839	9	250	589	10864	23	2444	6	1	11	1205	7	3	405	1073	82	3381		313
Same period 1953	2602	8	1370	256	1289	55	1731	8	2	2	2114	10	6	103	1212	77	3769		454
5-year median	2885	19	887	—	3965	35	1258	15		11	812	12	18	231	1377	237	3275		357

e = encephalitis infections
p = psittacosis
ty = typhus fever

Blue Cross - Blue Shield

THE BLUE SHIELD NATIONAL ORGANIZATION

R. H. DABNEY*

Early in the history of Blue Cross there was found to be a need for coordination of Plan activities on a national basis, and today such coordination for the 85 Blue Cross Plans throughout the country is provided through the Blue Cross Commission. Similarly, the activities of the 77 non-profit medical care Plans are now coordinated through an agency called Blue Shield Medical Care Plans—usually referred to as the Blue Shield Commission which is its governing body—with offices in Chicago operated jointly with the Blue Cross Commission.

Structurally, the Blue Shield national organization is composed of 30 Commissioners. Twenty-two of these are elected annually from the eleven geographical districts into which Blue Shield Plans are grouped, each district electing one commissioner who must be a Plan Trustee and one commissioner who must be a Plan Director. In addition, there are eight Commissioners-At-Large, one of whom is now appointed by the Council on Medical Service of the American Medical Association. The present composition of the Commission includes 18 doctors of medicine and 12 laymen.

Dr. L. Howard Schriver, a Cincinnati surgeon and a recent President of the Blue Shield Plan in Ohio, is President of the Commission and directs its activities through a six-man Executive Committee. A paid staff, under the supervision of Director Frank E. Smith, performs the administrative assignments, principally research, public relations, office and financial management, actuarial-statistical service, and inter-plan transfer arrangements. The Commission staff organizes national meetings throughout the year, usually in conjunction with Blue Cross, at which Plan personnel have an opportunity to exchange ideas and information on operating problems, such as enrollment, underwriting, and public relations. In addition, meetings are held in the various districts to discuss national programs such as the transfer agreement and to elect the Commissioners.

Activities of the Blue Shield Commission are supported financially by the 77 member Plans which contribute dues prorated on the basis of local enrollment. As of December 31, 1953, these Plans had a total enrollment of just over 28,000,000 persons. Twelve Plans have enrollments of over 500,000 subscribers, the three largest being New York City's United Medical Service with 3,057,700, Michigan Medical Service (Detroit) with 2,974,000, and Medical Service Association of Pennsylvania with 2,641,470.

No two Blue Shield Plans are exactly alike, but all must conform to certain basic approval standards established by the national Commission. Among these standards are (1) approval by local state or country medical societies, (2) responsibility of the medical profession for the medical services included in the benefits, (3) free choice of physicians for subscribers, (4) preservation of the patient-doctor relationship, and (5) not-for-profit financial operation.

Of the 77 approved Blue Shield Plans, 60 now provide benefits on a partial service basis, with the participating physicians agreeing to accept a specified fee if the subscriber's income is below certain levels. Such income limits differ in various localities, now ranging (Individual and Family) from $1,500 to $6,000 per year. One Plan provides full service benefits without regard to the subscriber's income. Altogether there are about 122,000 physicians participating, or roughly 89 per cent of all doctors in private practice in the areas served by Blue Shield Plans.

Administratively, Blue Shield Plans operate either (1) in complete coordination with Blue Cross, (2) in partial coordination with Blue Cross (enrollment and billing functions), or (3) independently from Blue Cross. The majority operate as we do in Maryland, namely, as separate corporations with separate governing boards, but in complete coordination with

* Executive Director, Maryland Hospital Service, Inc., and Maryland Medical Service, Inc.

Blue Cross under one director and one administrative staff.

All Blue Shield Plans offer surgical benefits, and a majority now also offer in-hospital medical services either as a part of their regular contracts or under special riders. A few Plans have provisions for home-and-office medical care. Benefits for medical specialties vary widely, as do benefits for consultations and assistant's services.

As a coordinating agency on the national level, the Blue Shield Commission serves an important function in guiding the growth and development of all Blue Shield Plans. Plans benefit through the regular services which the Commission staff provides, and the subscribing public benefits through the assurance that Plans which display the Blue Shield symbol and use the name *Blue Shield* have met definite prescribed standards and are operated on a non-profit basis under the sponsorship of the medical profession.

DR. MAGNUSON CRITICAL OF ADMINISTRATION REINSURANCE PLAN

The AMA Washington Letter, No. 66

Dr. Paul Magnuson, chairman of the 1952 Truman Health Commission, believes the administration's plan for reinsuring health plans might not accomplish what Congress would expect from it. Appearing before the House Interstate and Foreign Commerce Committee, Dr. Magnuson made these points:

1. The plan is not specific enough, and would result in a mass of fine print in contracts when the administrators attempted to interpret congressional intentions. If it enacts the plan, Congress should state definitely what is to be covered.

2. The question of the indigent or the medically indigent should be left to the judgment of the local community; as far as he knows, Dr. Magnuson said, there are no indigent who cannot be taken care of in this country by existing local facilities.

During the questioning, Dr. Magnuson indicated that his concern is not with the financial soundness of any reinsurance idea, but with its potential usefulness.

Woman's Auxiliary Medical and Chirurgical Faculty

MRS. JOHN G. BALL, *Auxiliary Editor*

THE SEAL OF THE WOMAN'S AUXILIARY TO THE MEDICAL AND CHIRURGICAL FACULTY

When our State Presidents have attended national meetings, they have felt that Maryland should have an identifying pin as most other states have. This year with the help of Mrs. George Yeager such a pin was designed. At the April Meeting, the President, Mrs. John G. Ball, wore the "President's Pin" with a small gold gavel, and presented it to Mrs. Albert E. Goldstein, the incoming President. A past-president's pin without the gavel was presented to Mrs. Thomas Christensen, organizer and first president of the Auxiliary. The pin is a gold replica of the state of Maryland enscribed with a half caduceus and the initials "W A M C F" and an added black enamel (Maryland) bar across the top.

Since a pin had been designed, the Auxiliary Board decided to have a seal made, similar to the pin, for use in the JOURNAL page and our stationery. The motto, "Hygiae Filiae," Daughters of Health, we felt, would show the interest of the Auxiliary in all matters pertaining to health. This seal is used for the first time in this issue of the JOURNAL.

STATE ANNUAL MEETING NOTES

The annual business meeting was well-attended. Delegates and county presidents representing our six organized counties, Baltimore City, Baltimore County, Prince George's, Montgomery, Washington and Wicomico were present. Members-at-large from Frederick, Carroll, Calvert and Anne Arundel counties attended.

The following officers were elected:

President—Mrs. Albert E. Goldstein (Baltimore City)

President-Elect—Mrs. Gerald W. LeVan (Washington County)

1st Vice-President—Mrs. Thomas C. Webster (Baltimore City)

2nd Vice-President—Mrs. David S. Clayman (Prince George's County)

3rd Vice-President—Mrs. William B. Long (Wicomico County)

4th Vice-President—Mrs. Thomas E. Wheeler (Baltimore County)

Parliamentarian—Mrs. Page C. Jett (Member-at-large)

Corresponding Secretary—Mrs. E. Elsworth Cook, Jr. (Baltimore City)

Recording Secretary—Mrs. Harold H. Mitchell (Montgomery County)

Treasurer—Mrs. Emil G. Bauersfeld (Montgomery County)

The following Committee Chairmen are announced by Mrs. Albert E. Goldstein: "Today's Health," Mrs. S. R. Wells, Hagerstown; Organization, Mrs. Gerald W. LeVan, Boonsboro; Public Relations, Mrs. George H. Yeager, Baltimore; Finance, Mrs. Whitmer B. Firor, Baltimore; Membership, Mrs. T. A. Christensen, College Park; Historian, Mrs. George E. Urban, Catonsville; Revisions and Resolutions, Mrs. Thomas C. Webster, Baltimore; Doctor's Day, Mrs. John S. Haught, Cheverly; Press and Publicity, Mrs. Thomas E. Wheeler, Randallstown; Bulletin, Mrs. S. Jack Sugar, College Park; Members-at-large, Mrs. James T. Marsh, Westminster; Co-Chairman, Mrs. Philip A. Insley, Salisbury; Legislation, Mrs. David S. Clayman, Riverdale; Civil Defense, Mrs. Arthur Baptisti, Jr., Hagerstown; Nurse Recruitment, Mrs. James P. Kerr, Damascus; Medical Education Foundation, Mrs. J. Carlton Wich, Baltimore; Convention Arrangements, Mrs. Charles H. Williams, Pikesville; Auxiliary Editor (MARYLAND STATE MEDICAL JOURNAL), Mrs. John G. Ball, Bethesda; Mental Health, Mrs. Harold H. Mitchell, Laytonsville.

The first memorial service for deceased members was held with a reading from Psalm 118.

Carnation corsages were presented to all members by Mr. Brown of Kloman Instrument Company, Baltimore. Favors of Soft-skin cream, pencils from Koontz Creamery, and Cavalier cigarettes were at all luncheon places.

Our speaker, Dr. John C. Krantz, Jr., charmed everyone with his superb delivery and wonderful speech, "The Simplicity to Wonder," which is on this page.

Mrs. Thomas Christensen, our organizer and first president, was presented with a past president's pin.

Mrs. Albert E. Goldstein received the president's pin and gavel and made her acceptance speech (see May JOURNAL) at this time.

The Hat and Fur Fashion show was very interesting. Our own members served as models and charming models they were! How did they ever learn those professional tricks of the modeling trade in a few minutes? It was really fun and we could all buy hats at half-price—the furs were beautiful but not half-price!

NATIONAL ANNUAL MEETING

The 31st Annual Meeting of the Woman's Auxiliary to the American Medical Association was held in San Francisco, California, June 21–24, 1954, with headquarters at the Hotel Fairmont. Maryland was proud to have Mrs. George H. Yeager serve as Constitutional Secretary. It is truly an honor for such a young Auxiliary to have a National Officer.

The meeting opened Monday at the Mark Hopkins Hotel, with round table discussions on Legislation, Mental Health, Nurse Recruitment, "Today's Health" and Public Relations. A tea honoring our President, Mrs. Leo Schaefer, was held later in the day.

The general sessions began on Tuesday, and Tuesday afternoon the Maryland State Report was read. A later issue of the JOURNAL will carry the full convention report.

The delegates representing Maryland were: Mrs. Gerald LeVan, Boonsboro; Mrs. James Kerr, Damascus; Mrs. A. E. Goldstein, Baltimore (Presidential delegate); Mrs. B. B. Kneisley, Hagerstown (Alternate).

THE SIMPLICITY TO WONDER[1]

JOHN C. KRANTZ, JR., PH.D.[2]

When Benjamin Franklin was in England the parliament was composed of three estates—the Lords Common, the Lords Noble and the Lords Temporal. Sir Edmund Burke, pointing to the reporters in the gallery—the gentlemen of the press—referred to these men as the fourth estate, probably destined to play as great a part in the history of mankind as any of the other three. Burke was unmindful of the fact that there was in England in the person of Benjamin Franklin, a prototype, an exemplar of the new estate—the fifth estate, men of science, architects of progress who were destined to remold the character of man's life upon this planet.

It is altogether fitting and proper that to-day we should think together about some of these members of the fifth estate who have played an important role in human progress. Few, indeed, are those in any generation who by their scintillating intellects and indomitable curiosity have broken through the frontiers of scientific knowledge and achieved discovery; Discovery, "the increment of progress"; Discovery, "the

[1]Presented at the Fifth Annual Meeting of the Woman's Auxiliary to the Medical and Chirurgical Faculty of the State of Maryland, on Tuesday afternoon, April 27, 1954, in the Blue Room, Sheraton Belvedere Hotel, Baltimore 2, Maryland.

[2]Professor of Pharmacology, University of Maryland School of Medicine.

differential coefficient of the curve of knowledge." I know of no better way to characterize these men than to say that "they have the simplicity to wonder, the ability to question, the power to generalize and the capacity to apply."

Lowell expressed the spirit and service of science in these inspiring lines,

> New experiences teach new duties,
> Time makes ancient good uncouth,
> He must onward still and upward
> Who would keep abreast of truth.

Rudyard Kipling characterized that fine art of critical thinking when he penned,

> I have six faithful, serving men.
> They serve me till I die,
> Their names are who, and what, and when,
> And how, and where and why.

My story begins in 1664. Charles II sat on the throne of England. The reign of no other British monarch witnessed such an illustrious galaxy of Englishmen. To philosophy and literature this era gave John Locke and Samuel Pepys; poetry was enriched by the advent of Milton and Dryden, and the names of Isaac Newton and Robert Boyle were inscribed upon the scroll of science. The architect, Christopher Wren, was contemporaneous with this distinguished group. Wren suggested to Boyle that if he could insert a quill into an animal's vein he could inject medicine or poison at will directly into the animal's circulation. Owing to the brilliance and resourcefulness of Wren, who at 24 was appointed Gresham Professor of Geometry at Oxford, Boyle was prompted to try the experiment. A dog was lashed to a table in the warden's dwelling at Wadham College. One of the superficial vessels of the leg was exposed and a quill inserted directly into the vessel and ligatured. By means of a syringe, an infusion of opium was injected. With bated breath the two investigators watched the animal slump into a deep narcosis. Inspired by the success of this experiment, the architect and chemist transfused blood from one dog to another. A new era in medicine was to be established—the quill became the precursor of the hypodermic needle which has made available as medicinal agents a host of substances which would otherwise be without therapeutic merit.

In 1665 the experiments were precipitously interrupted. The plague in London had reached its peak. Wren was off to Paris. The flamboyant Gothic architecture captured the imagination of the sagacious young scientist. Paris was building and Wren was a keen observer. In 1666 London was razed to the ground by the great fire. Hardly had the ashes cooled when Wren returned to aid in rebuilding a new London. And thus this scientist became a distinguished architect. As you stand in St. Paul's Cathedral and read the timeless epitaph, "If thou seek his monument, look about thee," you can feel the spirit of the genius of Wren, a man with the simplicity to wonder, the man who gave to medicine the art of transfusion and the concept of the hollow hypodermic needle.

The year is 1790, the scene is Paris, the thunder of the revolution shakes the earth. Yet in the quiet and calm of his laboratory Antoine Laurent Lavoisier is putting a

great question to nature. He has been told that when substances burn they lose a mysterious material called phlogiston. Lavoisier did not believe it; he asked, "How do you know that?" "If phlogiston exists," said Lavoisier, "I shall get it and weigh it on the balance and compute it by mathematics, if I cannot weigh it or compute it by mathematics, it does not exist." And thus with this spirit of wholesome inquiry he showed that burning was not the dephlogistination of matter but a combining with oxygen. "And then what about breathing?" inquired Lavoisier. He described the oxygenation of blood in the lungs and developed the biological chemistry of the pulmonary circulation described by Servetus.

But Lavoisier was an aristocrat and the revolutionary rabble was in the saddle. He was snatched abruptly from his experiments and tried before the revolutionary tribunal. Robespierre drew his finger around his neck and declared, "The republic hath no need of savants." On May 2, 1794, third in a line of 28, Lavoisier rode in the tumbril over the cobbled streets of Paris to the Place de la Concorde. The guillotine fell. Lagrange very trenchantly commented, "It took but a minute to sever that head, France will be a century in producing another like it." This statement was prophetic, because France did not produce another citizen like Lavoisier until the advent of Louis Pasteur. With the simplicity to wonder, he has been fittingly called the "father of modern chemistry."

The charming widow of Lavoisier escaped the guillotine. She married Count Rumford who settled in London and founded the Royal Institution. It was here that Sir Humphrey Davy worked. It was here that Michael Faraday, the book binder's boy, came to hear Davy's lectures. In this institution Faraday made benzene which has molded man's destiny on this planet. Here Faraday broke the lines of magnetic force around a magnet and induced an electric current. On this occasion Gladstone inquired of Faraday, "Suppose you have induced a current into that wire, what of it, Mr. Faraday?" Faraday replied, "Some day you will be able to tax it." Toward the end of a career replete with discovery, someone inquired of Sir Humphrey Davy, "What was your greatest discovery?" Unhesitatingly he replied, "My laboratory boy, Michael Faraday." That spirit of inquiry, the scientific attitude again had helped to carve the destiny of mankind.

Toward the end of the 18th century one of the most distinguished societies of England was the Lunar Society. Among its members were Erasmus Darwin, grandfather of the immortal Charles Darwin, James Watt, who discovered the power of steam, Joseph Priestly, who discovered oxygen and nitrous oxide, and William Withering, the "flower of English physicians." The principal of Brazen Nose College was seriously ill with dropsy. The standard treatments of the day had failed. The herb concoction of Mrs. Hutton of Shropshire was tried and produced dramatic results. This information reached Withering, who had the simplicity to wonder about it. He sought out Mrs. Hutton and for a few golden sovereigns secured the formula for the herb concoction of many ingredients. Carefully and experimentally on turkeys he tried the activity of the various herbs, ultimately arriving at the conclusion that it was the leaf of the purple foxglove that was responsible for the beneficial results. Those who are physicians in this audience can hear him as he said, "With this drug we can regulate the pulse at will." Little did he realize the importance of that

timeless paper published in 1785, "The Foxglove and an Account of Its Medicinal Properties." Withering, the busy clinician; Withering, the distinguished botanist; Withering, the connoisseur in mineralogy, would have been lost to posterity and the same tomb which covers his body would have covered his fame also, if he had not had the simplicity to wonder about and the ability to question an old herb concoction.

The year 1929 was a great one for the human race. It was at that time that Alexander Fleming discovered that the mold, penicillin, inhibited the usual growth of certain bacteria in culture dishes. It occurred to him that molds produced a substance inimical to the growth of bacteria. He made extracts of the mold-growth material and injected them into mice infected with various bacteria and was able to save their lives. Actually this experiment of Alexander Fleming reminds one of those words of Louis Pasteur, who said, "In the field of observation, chance favors only that mind which is prepared." Fleming turned to the medical profession and said, "Gentlemen, I have a drug made from a mold that will be useful for the cure of infectious disease." They turned a deaf ear to him. A decade passed.

It was a foggy, dreary, cold day in February, 1940, that a British bobby who had cut himself while shaving went to Radcliffe Hospital in Oxford with an infection of the blood. The whole gamut of sulfonamide drugs was tried but he got progressively worse. In the adjoining room Chain and Florey were repeating the experiment of Alexander Fleming. They injected their penicillin extract into the British bobby and his fever dropped precipitously. He appeared to be getting well but they were out of the drug and the British bobby died. These astute workers saved the urine from the now dead British police officer and extracted from it penicillin, with which a few days later they saved the life of a boy who had a septicemia resulting from an infected hip. The cure was dramatic. The evidence was overwhelming that these British workers had obtained a drug useful in the treatment of infectious diseases.

Soon penicillin was made by the pharmaceutical manufacturers of this country and placed in the hands of our Armed Forces and then given to the civilian population. After 14 years we look back and see that for the first time on this planet man has an anti-infective drug useful against many deadly organisms which is without any marked toxicity to the human being.

Enough has been said to show that this same science which has brought so many benefits to the human race has at the same time given us the terror of a new fear, that of atomic annihilation. Come with me, if you will, to the capital of California. We are approaching one of its massive buildings. As we enter that door a caption above it catches our eye, "Give me men to match these mountains." What this old world of ours so desperately needs are men and women with the eternal goodness of the Golden Rule in their hearts to match the scientific greatness of this, our hour.

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Book Reviews

Basic Bacteriology—Its Biological and Chemical Background. Carl Lamanna, Ph.D., Associate Professor of Bacteriology in the Johns Hopkins University School of Hygiene and Public Health, and M. Frank Mallette, Ph.D., Associate Professor of Biochemistry in the Johns Hopkins University School of Hygiene and Public Health. Foreword by James M. Sherman, Ph.D., Professor of Bacteriology, Cornell University. Copyright 1953. The Williams and Wilkins Company, Publishers. 677 pages. Illustrated. $10.00.

The teacher responsible for the direction of graduate education and research in bacteriology is confronted most often with the student whose background is inadequate in either chemistry and physics or bacteriology. Furthermore, at the undergraduate level, there is little integration of the basic sciences of chemistry and physics with bacteriology.

While the lack of a satisfactory background in chemistry and physics may be corrected in the graduate program of study the failure to integrate these sciences with bacteriology often remains as a problem. The textbooks available in bacteriology are either elementary or advanced with respect to content and either quite generalized or highly specific with respect to viewpoint. *Basic Bacteriology* does more than fill the void between the extremes, it provides a solution for the problem of integration. For the medical student it is an excellent reference source for basic bacteriology.

This text provides for the graduate student a comprehensive and integrated foundation in basic bacteriology.

E. S.

A. M. A. SERVICE MEMBERSHIP

During the past few years, there has been considerable confusion concerning the membership status of physicians entitled to Service Membership in the American Medical Association.

The following medical officers are eligible to hold *Service* Membership in the A. M. A., which type of membership does not require payment of A. M. A. dues or membership through a constituent society:

Regular U. S. Army
Regular U. S. Navy
Regular U. S. Air Force
Regular U. S. Public Health Service
Veterans Administration (full-time career officers)
Indian Service (full-time career officers)
Retired medical officers of the above six services provided they do not engage in active practice.

Service members cannot be counted by a constituent association toward A. M. A. delegate representation. The number of delegates from the constituent associations is proportional to the number of *Active Members* of the American Medical Association in the respective associations.

A physician can hold only one type of membership in the A. M. A. at any one time. A Service member, for example, is eligible to *Active* A. M. A. membership only after his name has been removed from the Service Membership category.

A.M.A. NEWS RELEASE—WASHINGTON OFFICE

THE MONTH IN WASHINGTON

Washington, D. C.—The controversial health reinsurance issue has come back into prominence, and under conditions that make the whole question about as complicated as it can get. The bill would have the federal government underwrite voluntary health insurance plans if they agree to experiment with risks not usually covered.

Although this measure is a major part of President Eisenhower's health program, it became bogged down in the House Interstate and Foreign Commerce Committee when widespread opposition developed. Then the committee chairman, Rep. Charles E. Wolverton (R.-N.J.), turned to one of his favorite subjects, a plan for federal guarantee of private loans to health facilities for construction and equipment. This bill, however, was not supported by the administration.

In an effort to placate the opposition, Mr. Wolverton offered to eliminate a number of objectionable features from the mortgage guarantee bill. At the same time there were reports that he proposed to merge this bill with the administration-supported reinsurance bill. Meanwhile, Henry J. Kaiser made two special trips to Washington to help out his friend, Mr. Wolverton, by putting his weight behind the mortgage loan idea. That was not surprising, inasmuch as Mr. Kaiser had helped to draw up the bill, which would greatly benefit health centers such as those started on the West Coast by the Kaiser Foundation.

Mr. Kaiser, saying he was producing a film to promote the mortgage loan plan, went to the unusual extent of making a direct appeal to Washington news correspondents to write favorable copy about the bill.

While these Wolverton-Kaiser maneuverings were taking place on the mortgage bill, it became apparent that President Eisenhower was not ready to abandon the reinsurance idea. He called a number of executives of major life insurance companies to the White House to try to impress them with the merits of reinsurance and in other ways indicated he still wanted to see the bill passed this session. Secretary Hobby, whose original testimony for reinsurance had been restrained, also joined in the last-minute campaign. But it appeared the tangle might be too complicated even for Mr. Eisenhower to unravel before adjournment.

Most other parts of the Eisenhower health program were moving through Congress, even though some were off schedule. (Of the major bills, AMA opposes only reinsurance.) Legislation to expand the Hill-Burton hospital construction program cleared what might have been a serious obstacle when it was reported out by the Senate committee. Compared with the House bill, the Senate bill gave more discretion to state health authorities in use of funds for constructing facilities for the chronically ill, for nursing homes, and for health centers. However, the Senate would require that funds earmarked for rehabilitation centers be used for the stated purpose. The Senate also would rule out the possibility of U. S. grants to centers devoted solely to treatment. Unless the facility could qualify as a diagnostic center, or a diagnostic-treatment center, it could not be eligible under the Senate bill. This safeguard was not in the House bill.

Of the remaining legislation of interest to the medical profession, the status at this writing was about as follows:

The doctor draft amendment, to strengthen Defense Department's hand in dealing with physicians who might be security risks, had passed the Senate, been reported by the House committee, and was almost a law. Also about to be enacted was a provision liberalizing medical expense deductions from taxable income. The long-dormant bill to transfer responsibility for Indians' health matters from the Indian Bureau in Interior Department to Public Health Service in the Department of Health, Education, and Welfare was pointed toward enactment,

but might possibly be held up by objections of Senators from a few western states. The Interior Department had dropped its original objection.

The House-passed social security bill, with the compulsory coverage of physicians eliminated, was before the Senate Finance Committee, where anything could happen. Two bills of medical interest already had been passed by both houses and signed into law. One prohibits the shipment of fireworks into a state where fireworks are illegal, and the other relieves Army medical officers of the technical responsibility for supervising preparation of food.

A reassuring note was sounded by President Eisenhower when he forwarded to Congress the controversial International Labor Organization convention on minimum standards of social security with a recommendation that it not be ratified. His message said most of the points—including a suggestion for socialized medicine—were not proper subjects for the Congress to deal with.

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INTERGOVERNMENTAL COMMISSION SETTING UP HEALTH COMMITTEE

The A. M. A. Washington Letter, No. 69

Federal-state responsibilities in the field of health will be studied by a special committee now being formed by the Commission on Intergovernmental Relations. The 10-man group will include three commission members. Four research organizations are also reviewing the administrative, fiscal, and political aspects of federal grants-in-aid programs, and are expected to report to the commission within the next few months. Formerly headed by Clarence Manion, the commission now is under the direction of Meyer Kestnbaum. George C. S. Benson, commission research director, called his group's study division of health responsibilities "the most substantial program ever undertaken in the field" in a speech before the U. S. Chamber of Commerce.

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PRESIDENT AGREES TO $25 MILLION HILL-BURTON INCREASE

The A. M. A. Washington Letter, No. 70

President Eisenhower will recommend that Congress increase these three health program appropriations for fiscal 1955: Hill-Burton hospital construction from $50 million to $75 million; vocational education from $17.5 to $18.6 million; and Public Health Service grants (tuberculosis, venereal disease, etc.) from $19.4 million to $22.8 million. Announcement that the administration would not insist on holding to the Budget Bureau's figures was made by Senator Thye before a session of the appropriations subcommittee of which he is chairman. The new figure for Hill-Burton would be $10 million higher than the current appropriation, but the other two changes would in effect bring the programs up to the current level of spending. The Hill-Burton appropriation would be applied only to grants for hospitals; legislation passed by the House and pending in the Senate Health Subcommittee to extend the Hill-Burton program would require additional appropriations. The administration made no mention of increasing the funds for vocational rehabilitation, inasmuch as legislation to expand this program is pending in House and Senate. If the legislation is adopted, vocational rehabilitation appropriations would be increased from $19.5 million to $23 million or more.